

FIG. 1

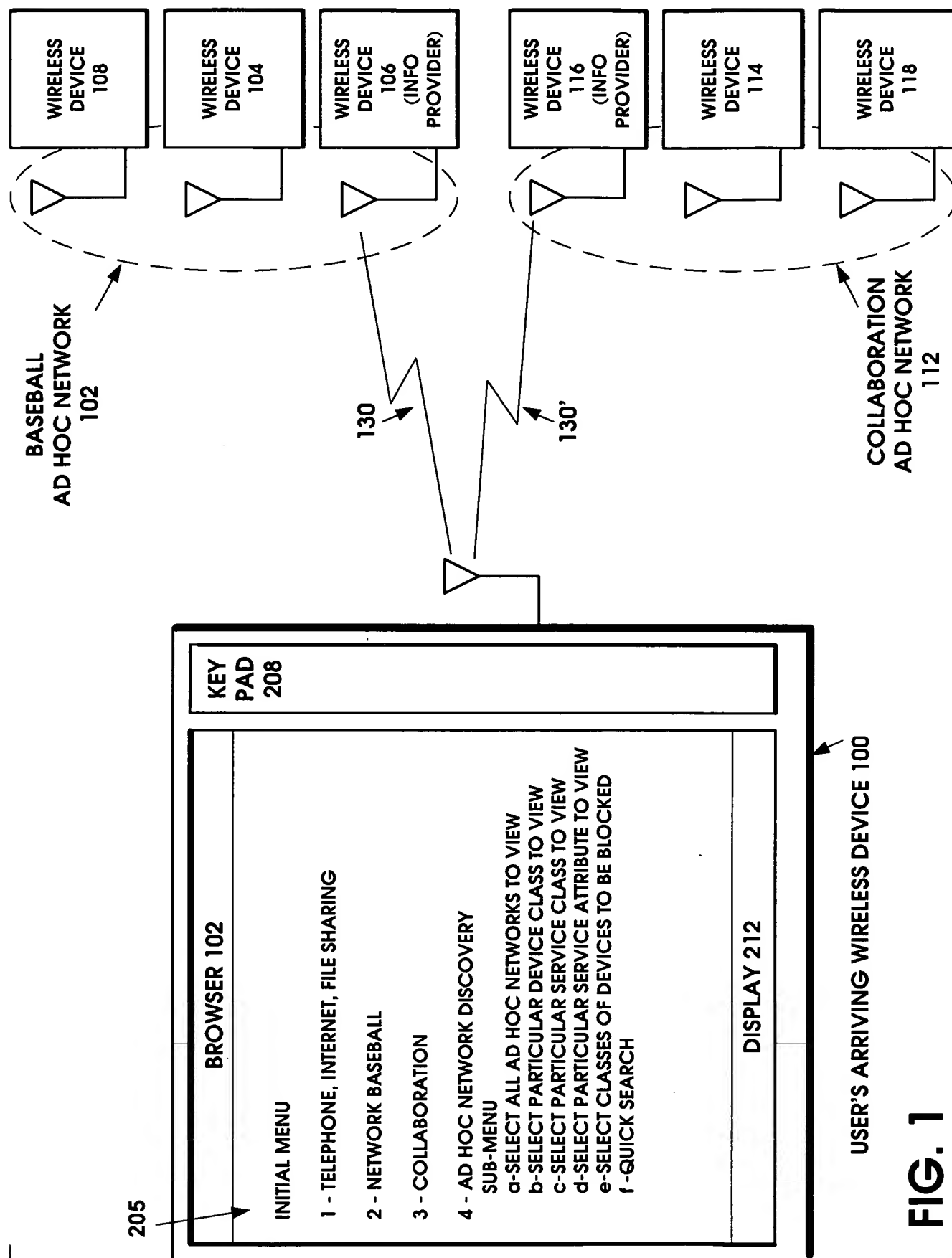


FIG. 1

FIG. 1A

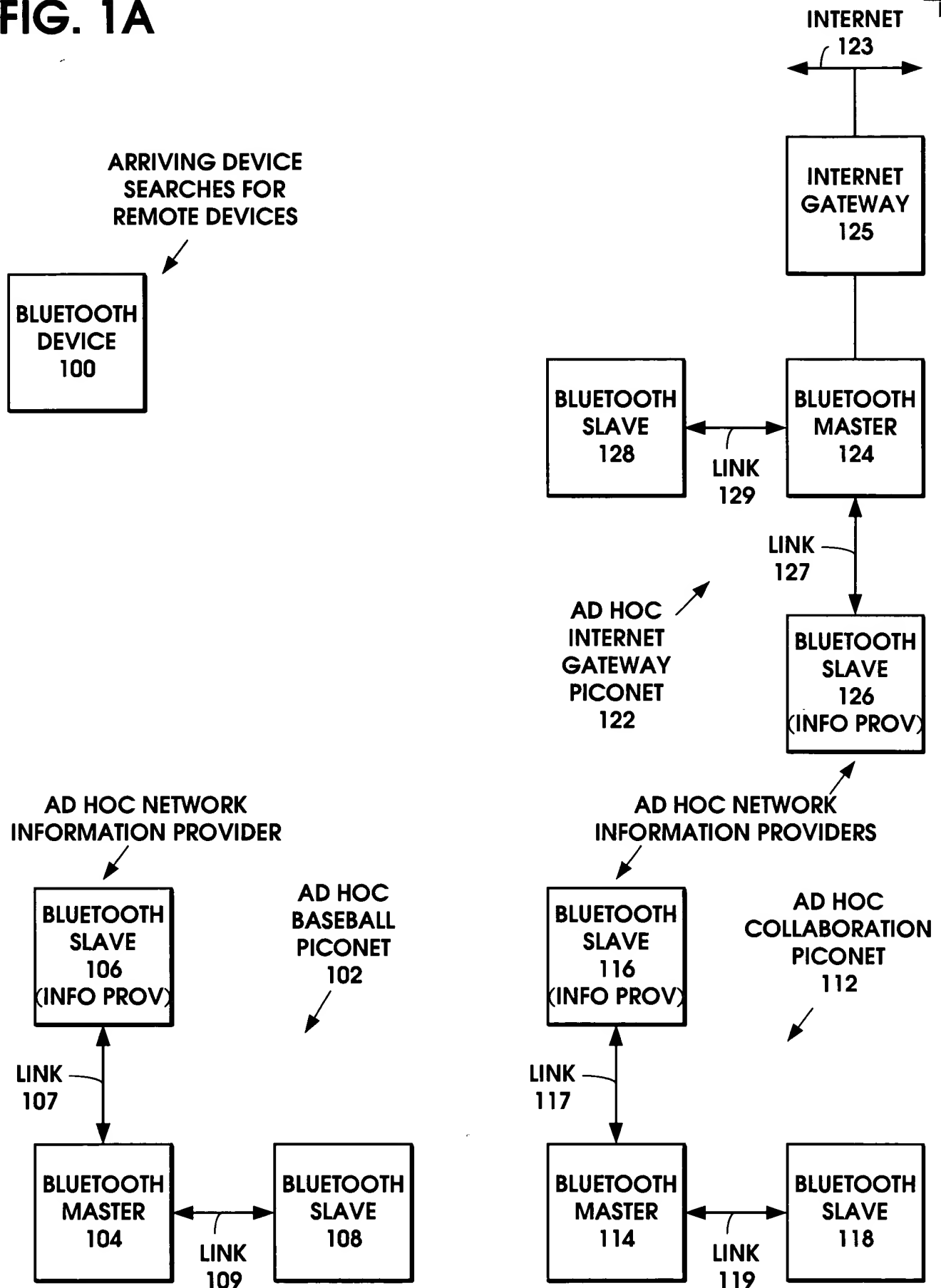
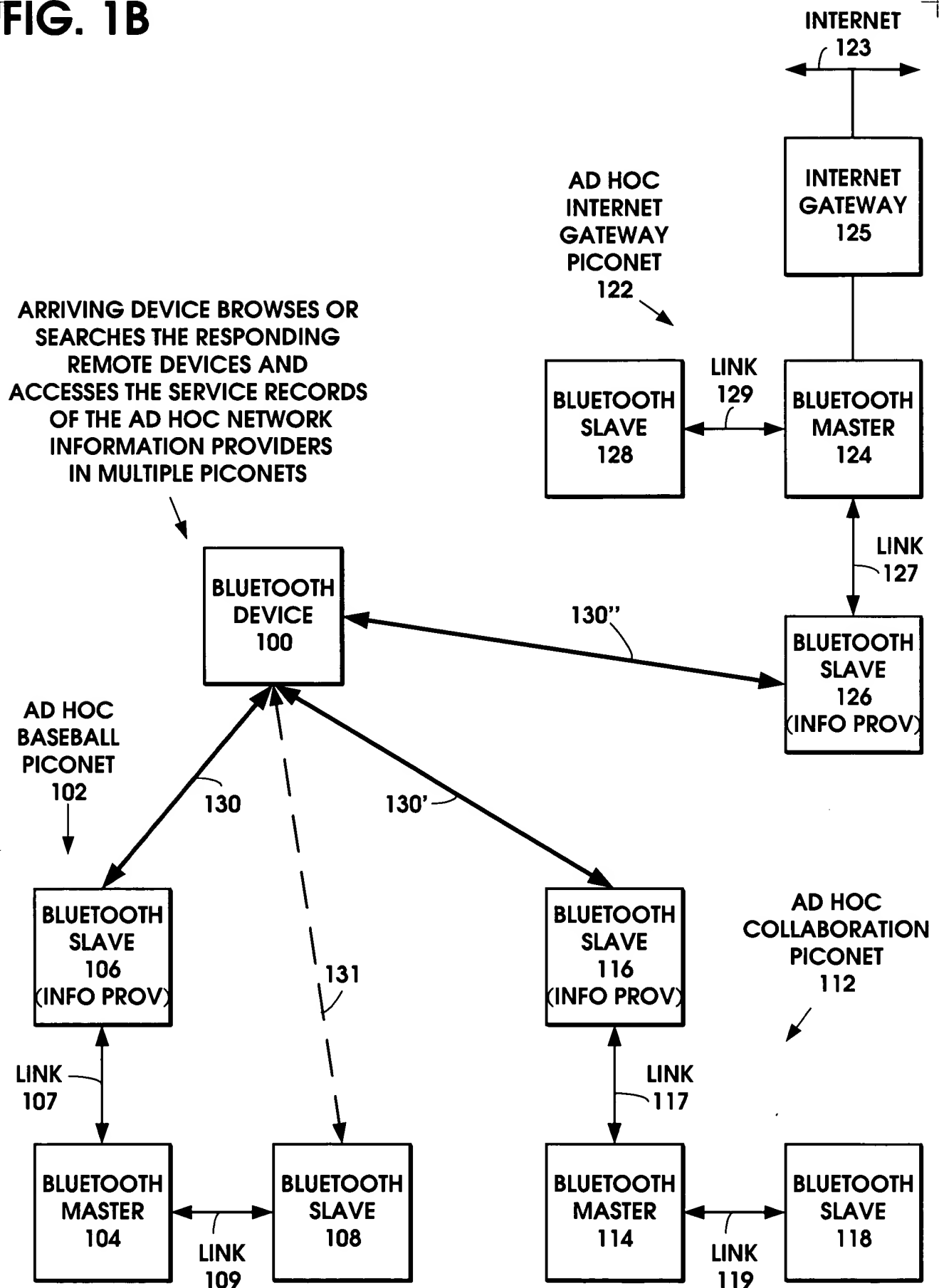
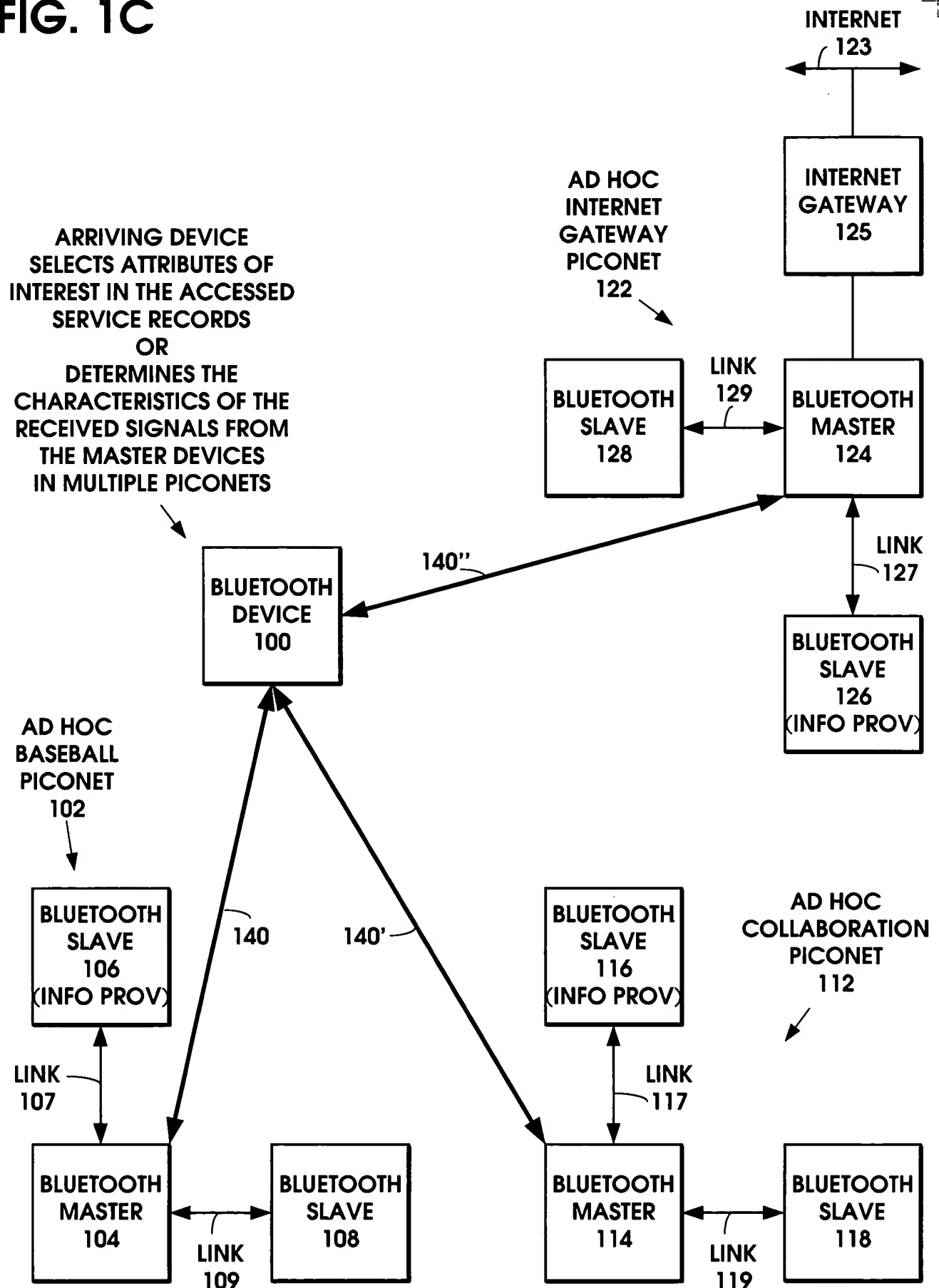


FIG. 1B



0991382-062701

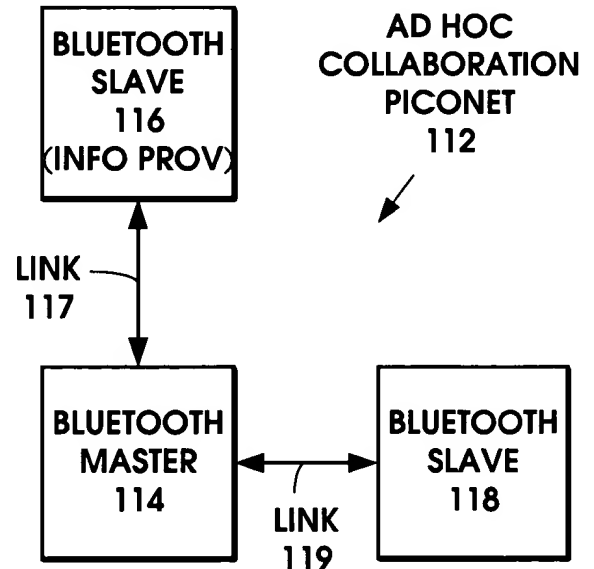
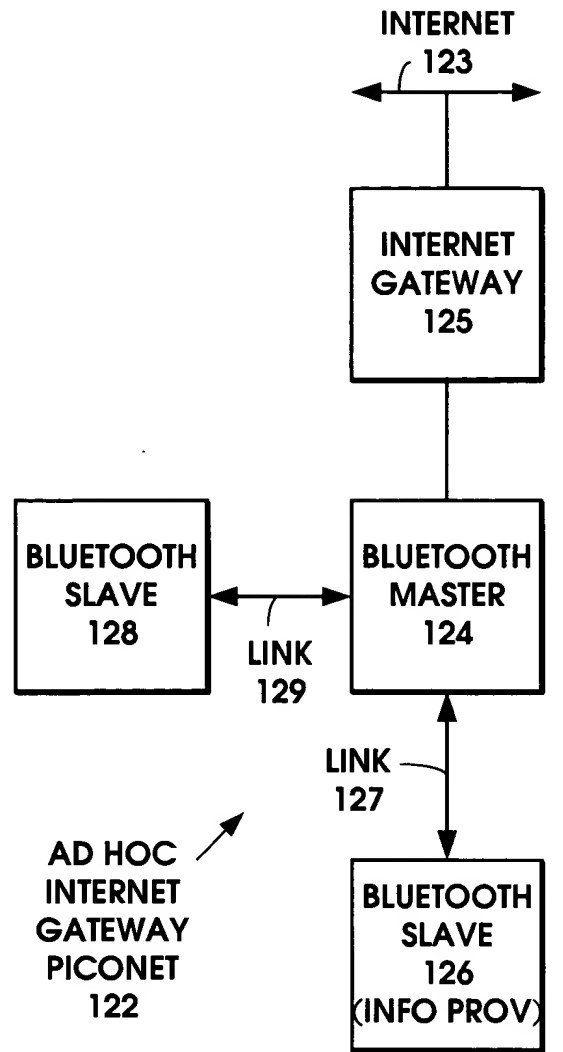
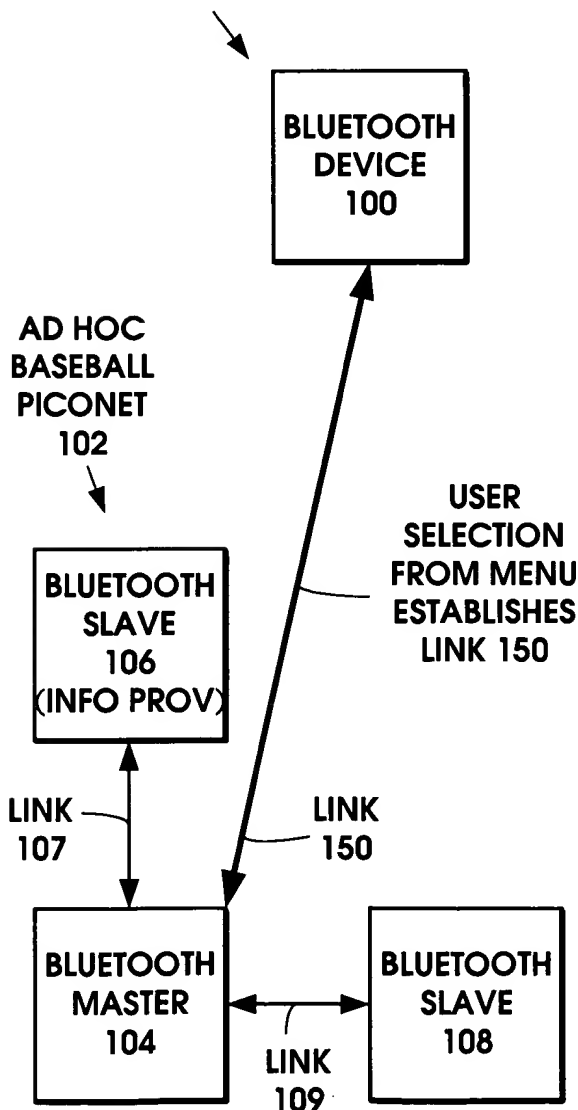
FIG. 1C



09891382 062701

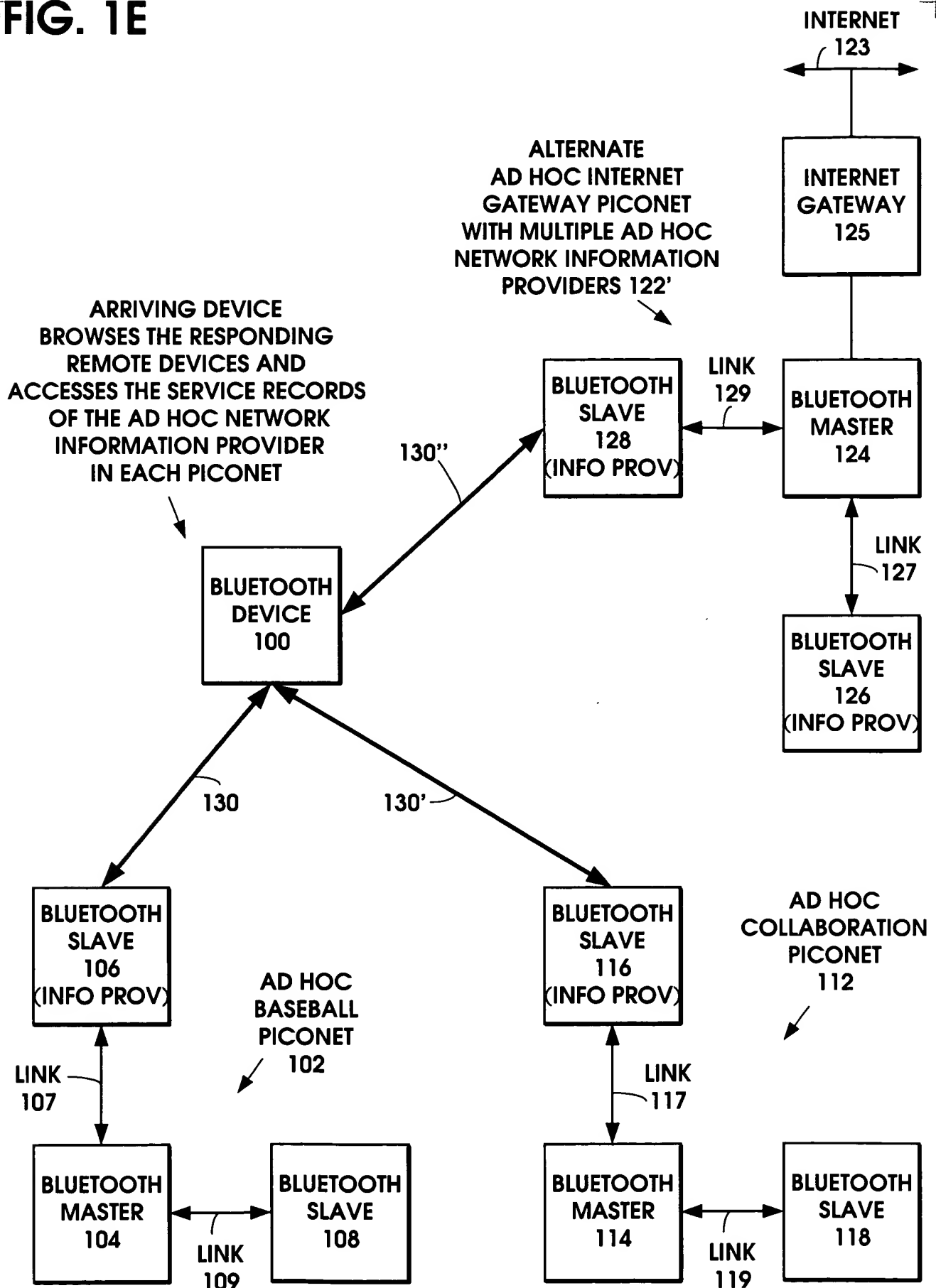
FIG. 1D

ARRIVING DEVICE  
 FORMS A NETWORK DISCOVERY  
 MENU INCLUDING DESCRIPTIONS  
 OF AD HOC NETWORK  
 APPLICATION PROGRAMS  
 RUNNING IN MULTIPLE PICONETS,  
 DERIVED FROM THE ACCESSED  
 SERVICE RECORDS AND  
 RANKED ACCORDING TO THE  
 SELECTED ATTRIBUTES OR TO THE  
 SIGNAL CHARACTERISTICS



0994382-062701

FIG. 1E



09891382-062701  
T04290-2837701

FIG. 1F

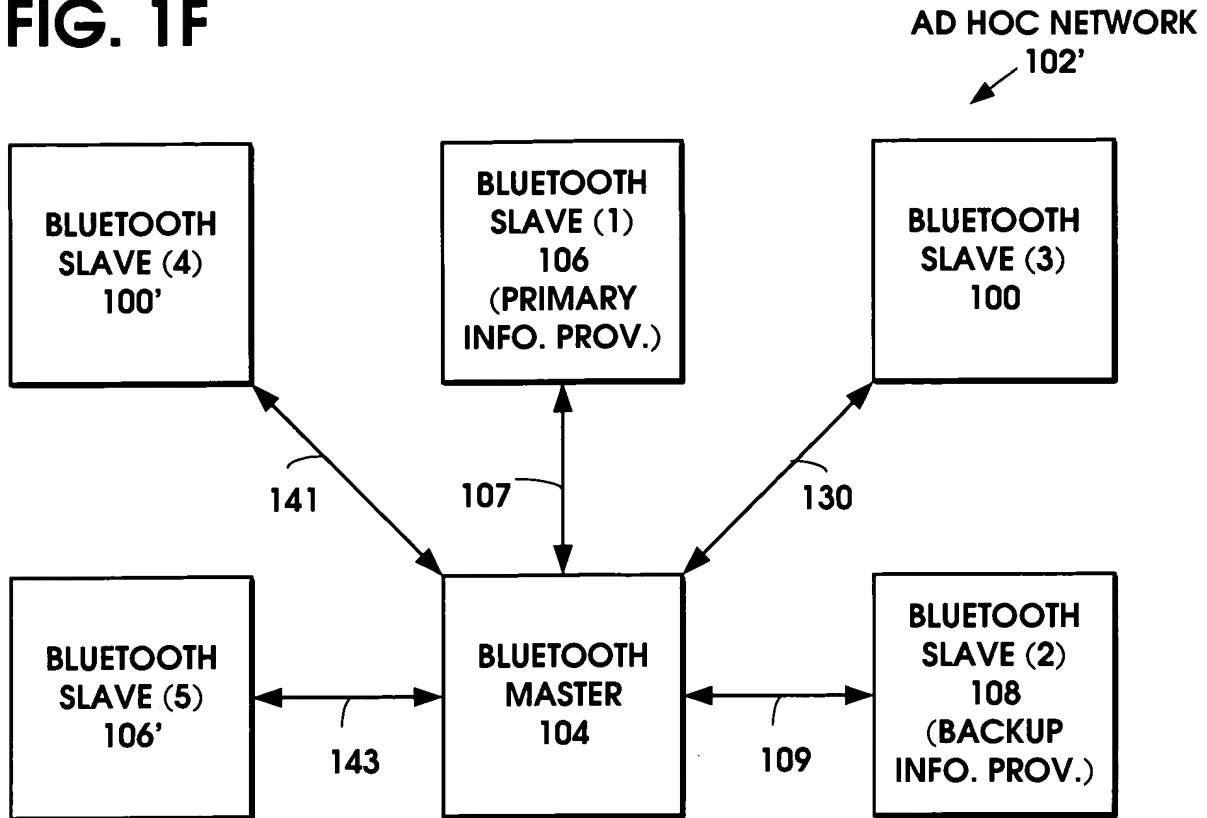
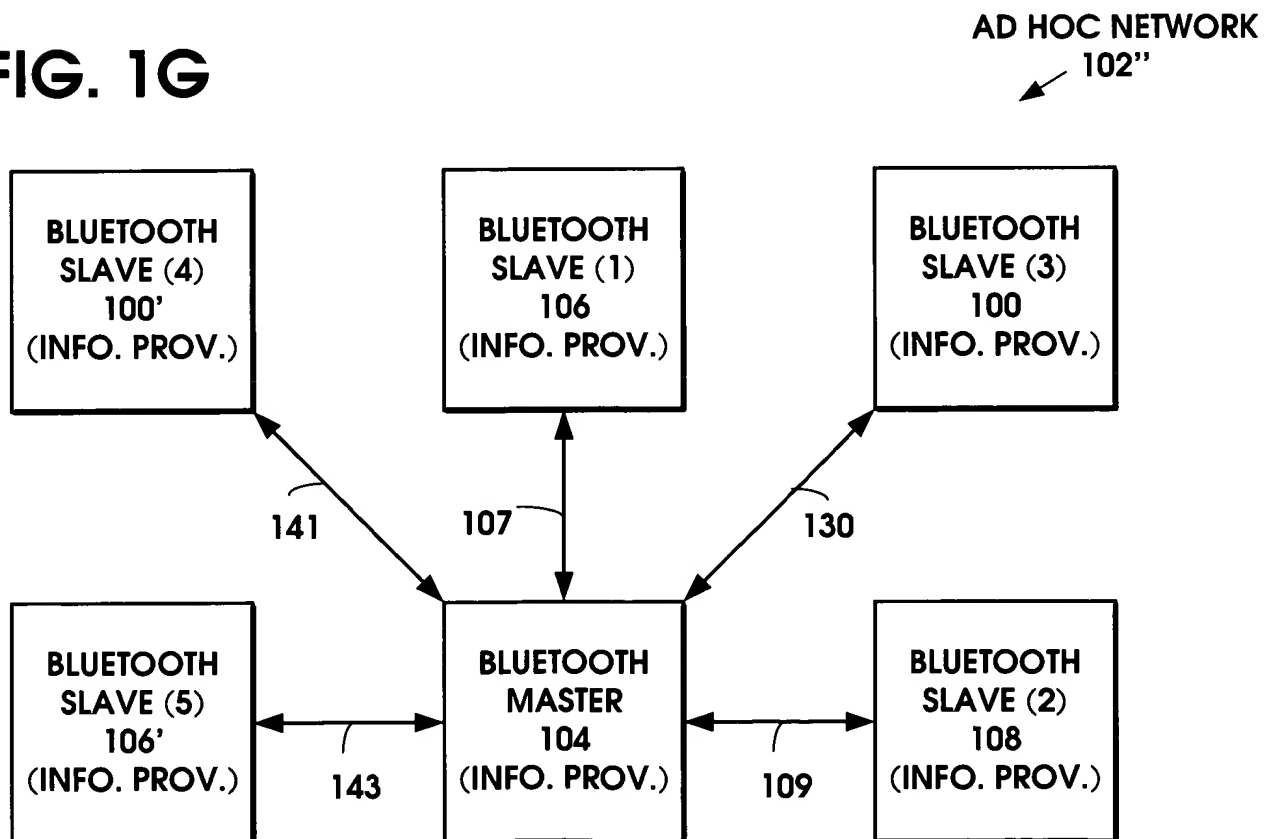


FIG. 1G



TO 4290 " 28377 01

FIG. 2A

WIRELESS DEVICE 100

MEMORY 202

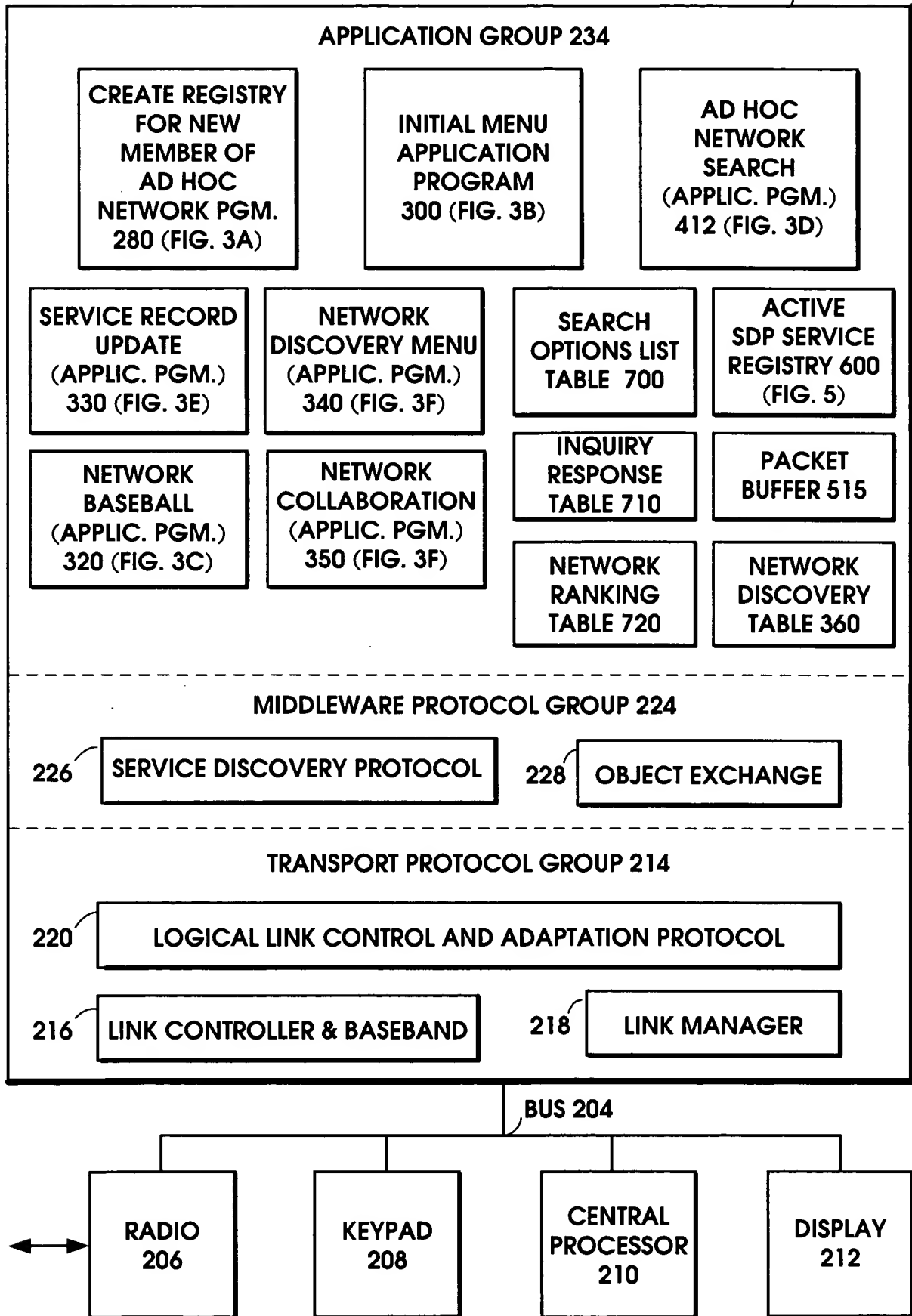


FIG. 2A



TD290" 28ET6860

ARRIVING  
WIRELESS DEVICE 100

HYPERLINKS 235

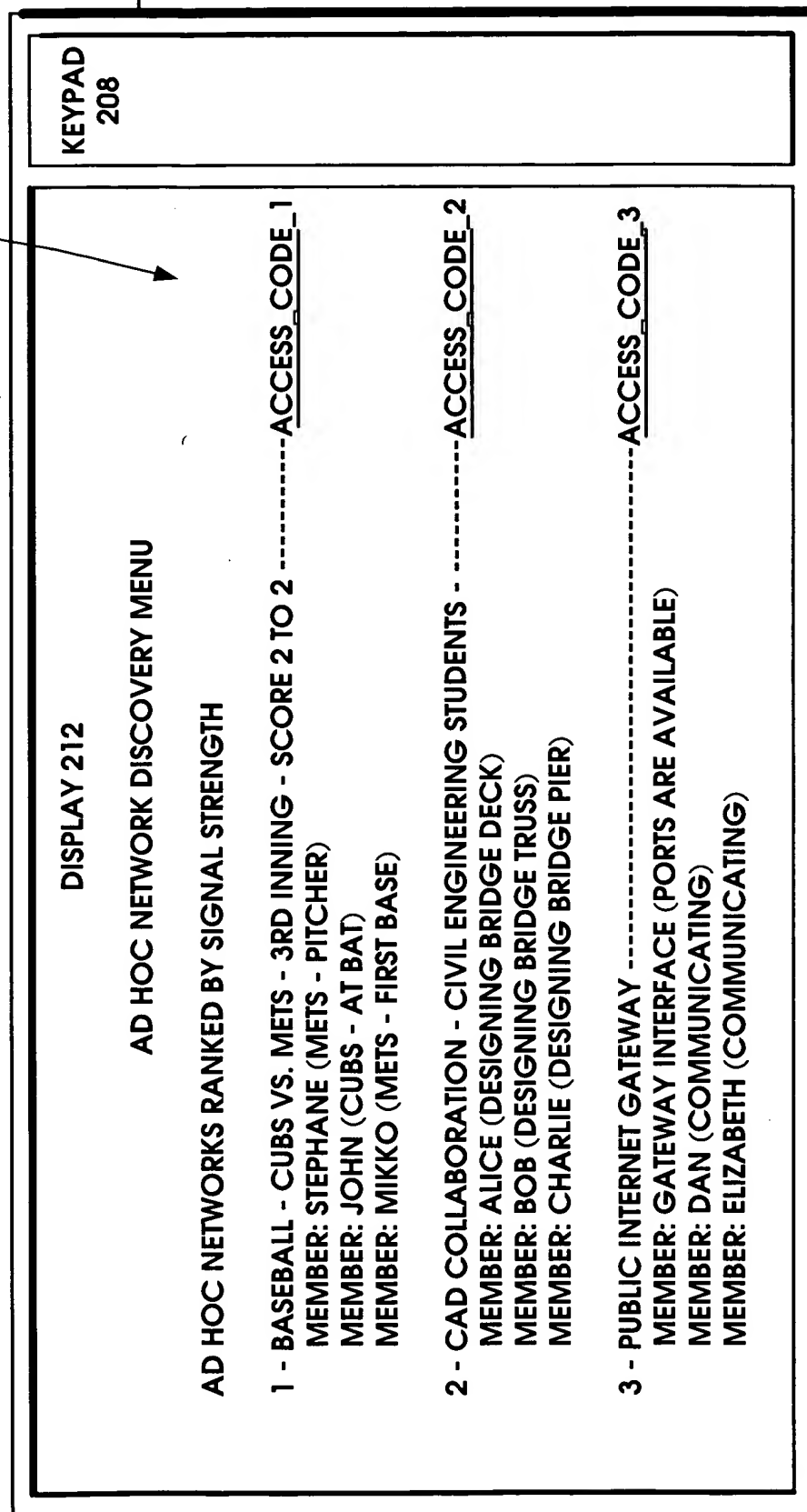


FIG. 2B

104290\* 28ET6850

ARRIVING  
WIRELESS DEVICE 100

HYPERLINKS 235

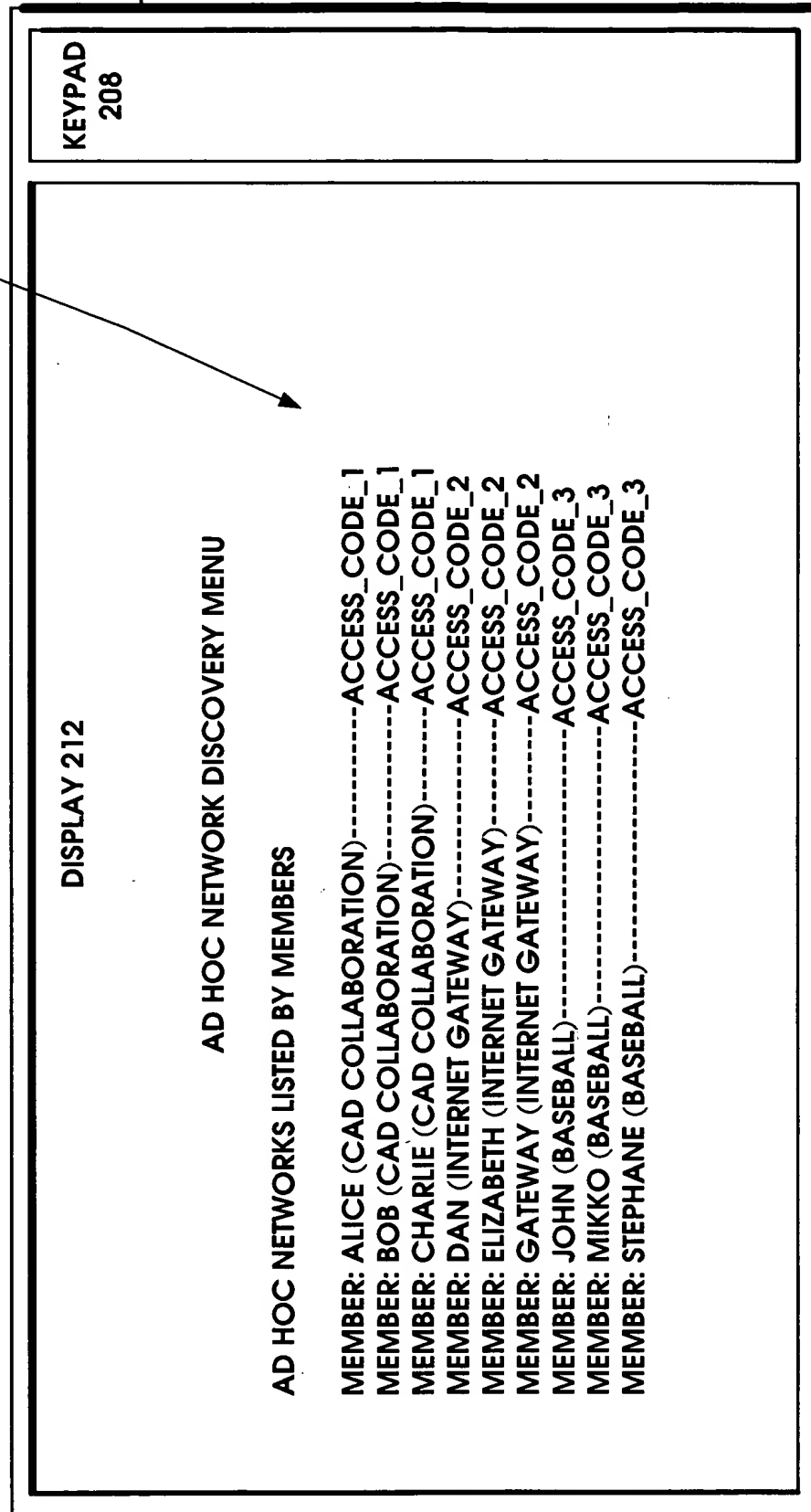
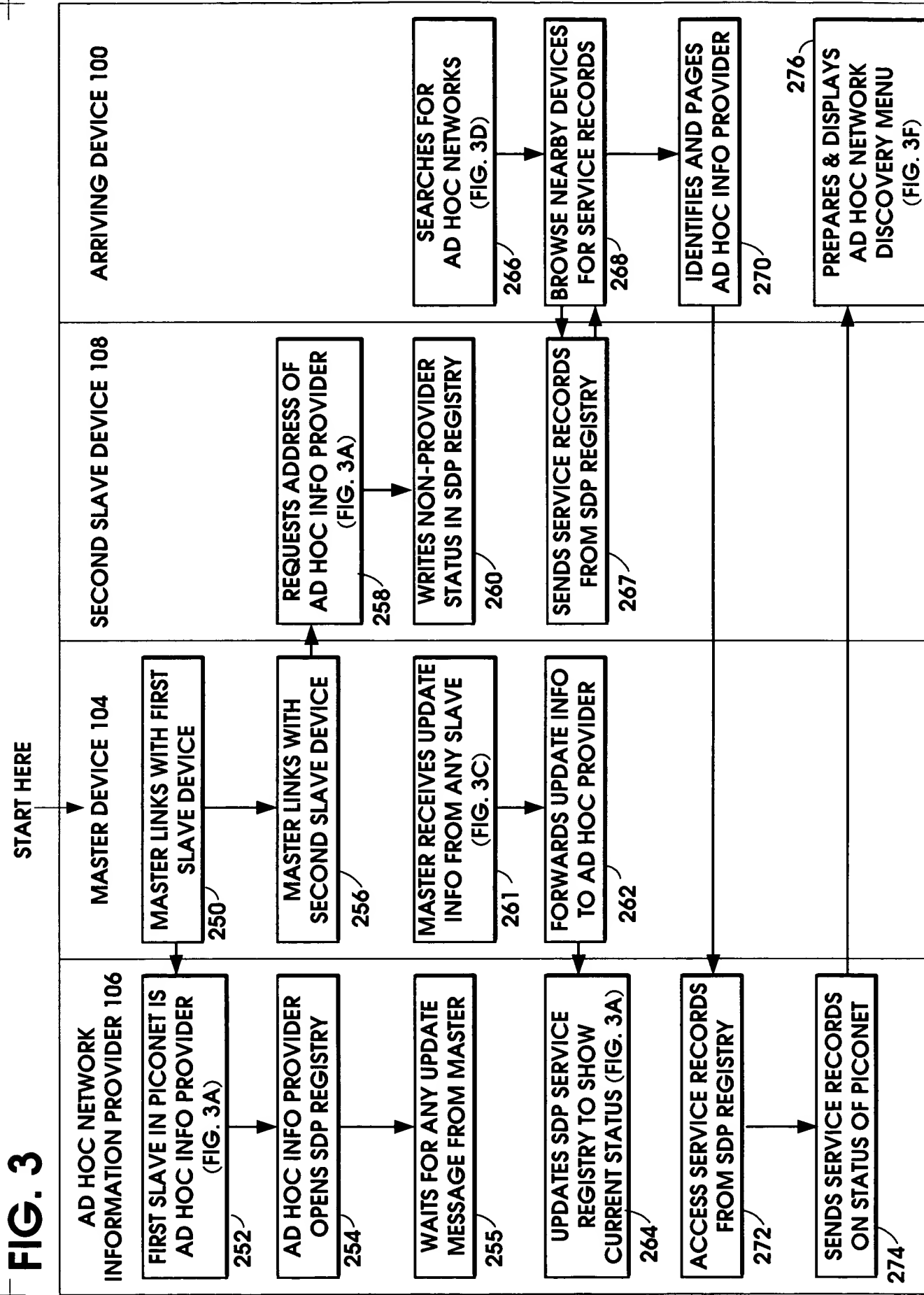


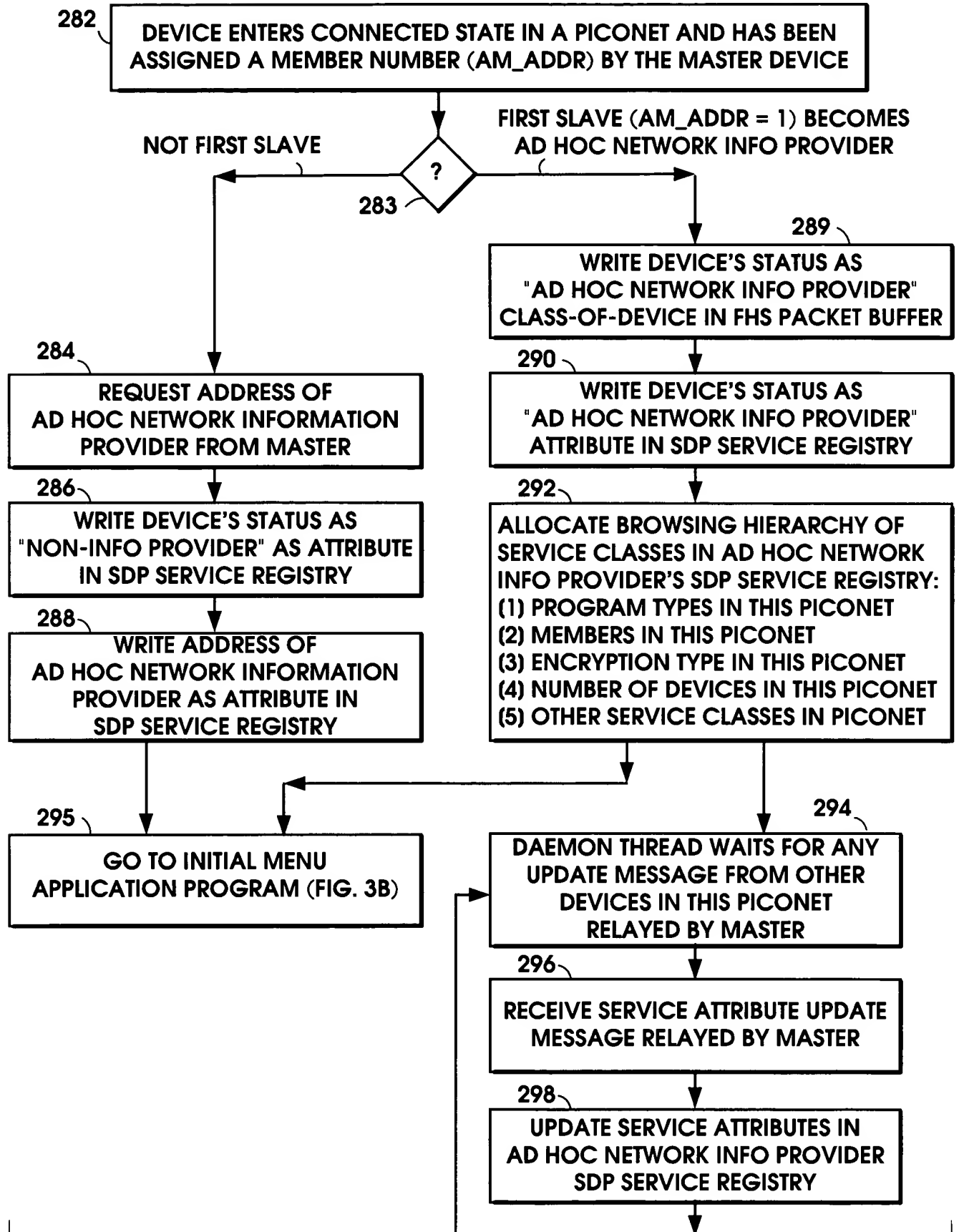
FIG. 2C

FIG. 3



**FIG. 3A**

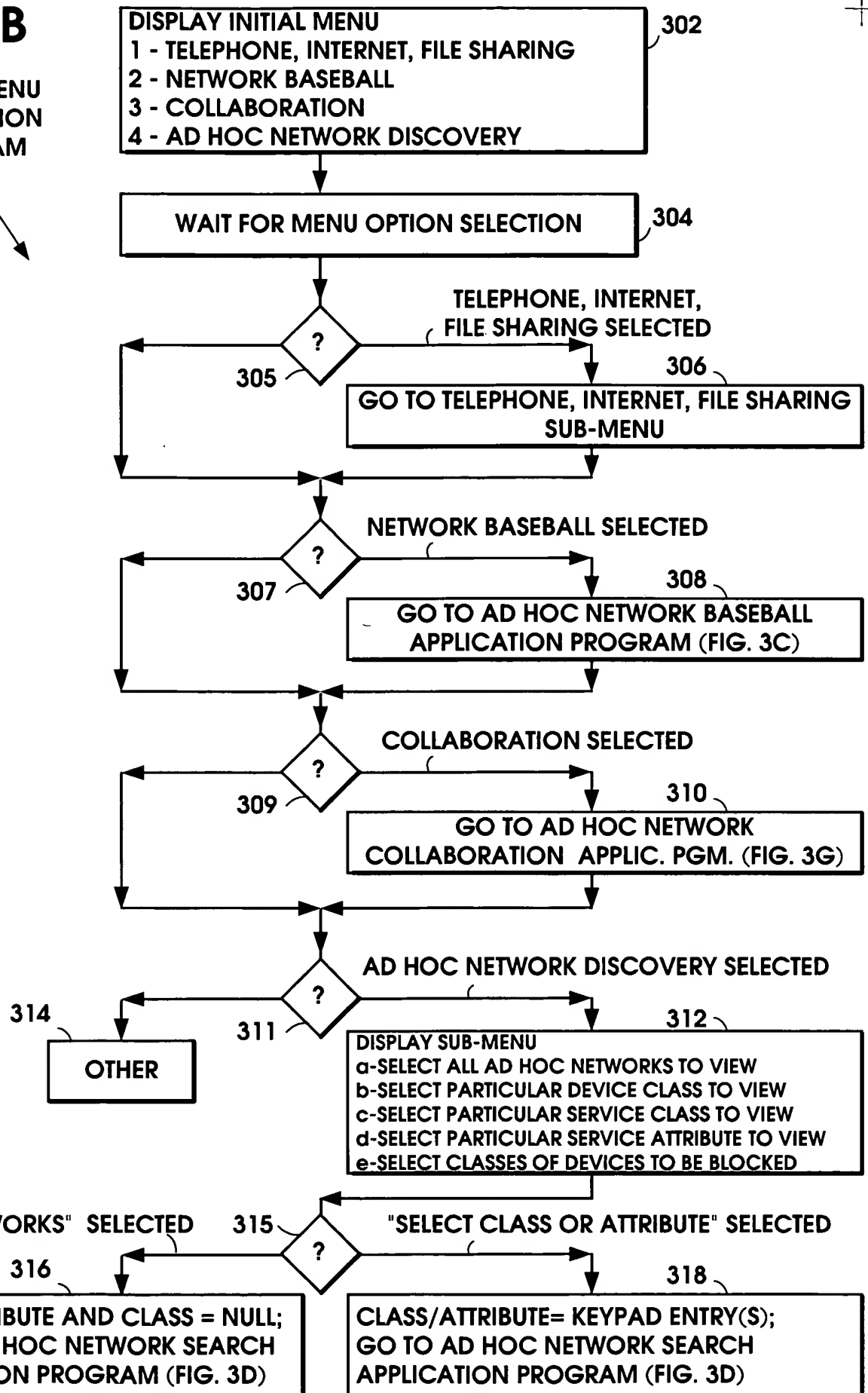
**CREATE REGISTRY FOR NEW MEMBER OF PICONET PROGRAM 280**



0901302 062701  
102290 28377

FIG. 3B

INITIAL MENU  
APPLICATION  
PROGRAM  
300



09891382-062701

**FIG. 3C**

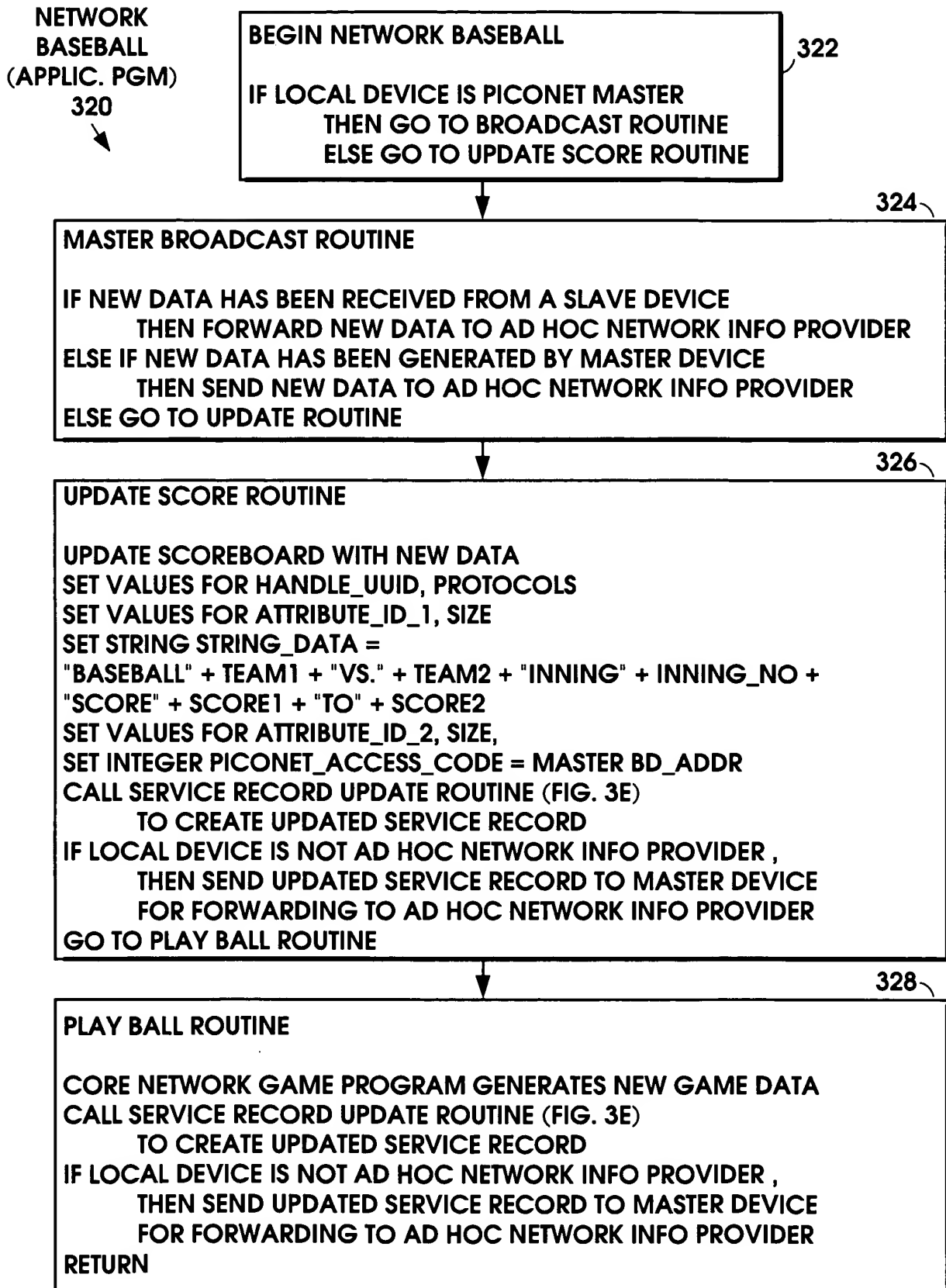
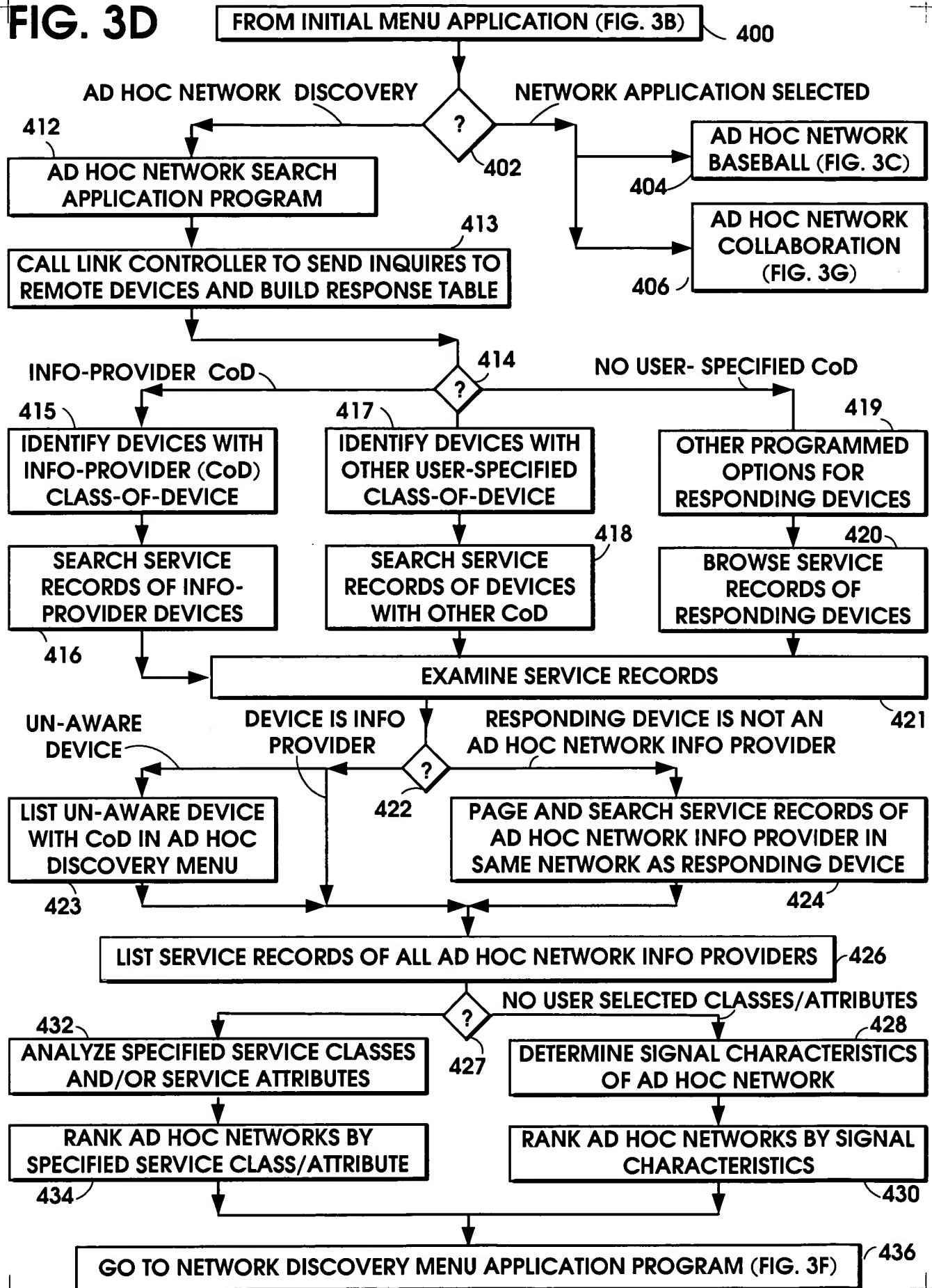


FIG. 3D



00001302 052701  
T07290 20251650

## FIG. 3E

SERVICE RECORD  
UPDATE  
(APPLIC. PGM)  
330  
↓

### SERVICE RECORD UPDATE ROUTINE

SET VALUES FROM LOCAL AD HOC NETWORK APPLICATION PROGRAM

ServiceRecordHandle = HANDLE\_UUID

ServiceClass = "NETWORK\_SERVICE"

ProtocolDescriptorList = PROTOCOLS

AttributeIdentifier1 = ATTRIBUTE\_ID\_1

AttributeType1 = "STRING"

AttributeSize1 = SIZE

AttributeData1 = STRING\_DATA

AttributeIdentifier2 = ATTRIBUTE\_ID\_2

AttributeType2 = "INTEGER"

AttributeSize2 = SIZE

AttributeData2 = PICONET\_ACCESS\_CODE

WRITE UPDATED SERVICE RECORD TO LOCAL SDP SERVICE REGISTRY AS

ServiceRecordHandle / ServiceClass / ProtocolDescriptorList /

AttributeIdentifier1 / AttributeType1 / AttributeSize1 / AttributeData1 /

AttributeIdentifier2 / AttributeType2 / AttributeSize2 / AttributeData2

RETURN

00001382.062701  
T0299.28E76860



**FIG. 3F**

340

**BEGIN NETWORK DISCOVERY MENU APPLICATION IN ARRIVING DEVICE**

**DISPLAY NETWORK DISCOVERY MENU**

**OPTION      STRING**

- |          |                                                             |
|----------|-------------------------------------------------------------|
| <b>1</b> | <b>"BASEBALL CUBS VS. METS 3RD INNING SCORE 2 TO 2"</b>     |
| <b>2</b> | <b>"CAD COLLABORATION NEED HELP DESIGNING BRIDGE TRUSS"</b> |
| <b>3</b> | <b>"INDIVIDUALS CONNECTED TO INTERNET GATEWAY DEVICE"</b>   |

**WAIT FOR SELECTION**

**IF OPTION = 1 THEN**

**SEND PAGE TO AD HOC BASEBALL PICONET MASTER DEVICE  
    USING AD HOC BASEBALL PICONET\_ACCESS\_CODE**

**RECEIVE ID PACKET FROM AD HOC BASEBALL MASTER DEVICE  
    WHICH ASSUMES TEMPORARY ROLE AS REMOTE SLAVE  
    TO ARRIVING DEVICE WHICH ASSUMES TEMPORARY ROLE AS  
    MASTER IN A TEMPORARY NEW PICONET**

**SET UP LINK BETWEEN ARRIVING DEVICE AND REMOTE DEVICE  
REQUEST BY ARRIVING DEVICE TO SWITCH MASTER/SLAVE ROLES  
ARRIVING DEVICE BECOMES SLAVE AND REMOTE DEVICE RESUMES  
    MASTER ROLE IN AD HOC BASEBALL PICONET**

**ELSE IF OPTION = 2 THEN**

**SEND PAGE TO AD HOC COLLABORATION PICONET MASTER DEVICE  
    USING AD HOC COLLABORATION PICONET\_ACCESS\_CODE**

**RECEIVE ID PACKET FROM AD HOC COLLABORATION MASTER  
SET UP LINK BETWEEN ARRIVING DEVICE AND REMOTE DEVICE  
REQUEST BY ARRIVING DEVICE TO SWITCH MASTER/SLAVE ROLES  
ARRIVING DEVICE BECOMES SLAVE AND REMOTE DEVICE RESUMES  
    MASTER ROLE IN AD HOC COLLABORATION PICONET**

**ELSE IF OPTION = 3 THEN**

**SEND PAGE TO AD HOC INTERNET GATEWAY PICONET MASTER DEVICE  
    USING AD HOC INTERNET GATEWAY PICONET\_ACCESS\_CODE**

**RECEIVE ID PACKET FROM AD HOC INTERNET GATEWAY MASTER  
SET UP LINK BETWEEN ARRIVING DEVICE AND REMOTE DEVICE  
REQUEST BY ARRIVING DEVICE TO SWITCH MASTER/SLAVE ROLES  
ARRIVING DEVICE BECOMES SLAVE AND REMOTE DEVICE RESUMES  
    MASTER ROLE IN AD HOC INTERNET GATEWAY PICONET**

**ELSE RETURN**

00001382-062701  
102290-28377

FIG. 3G

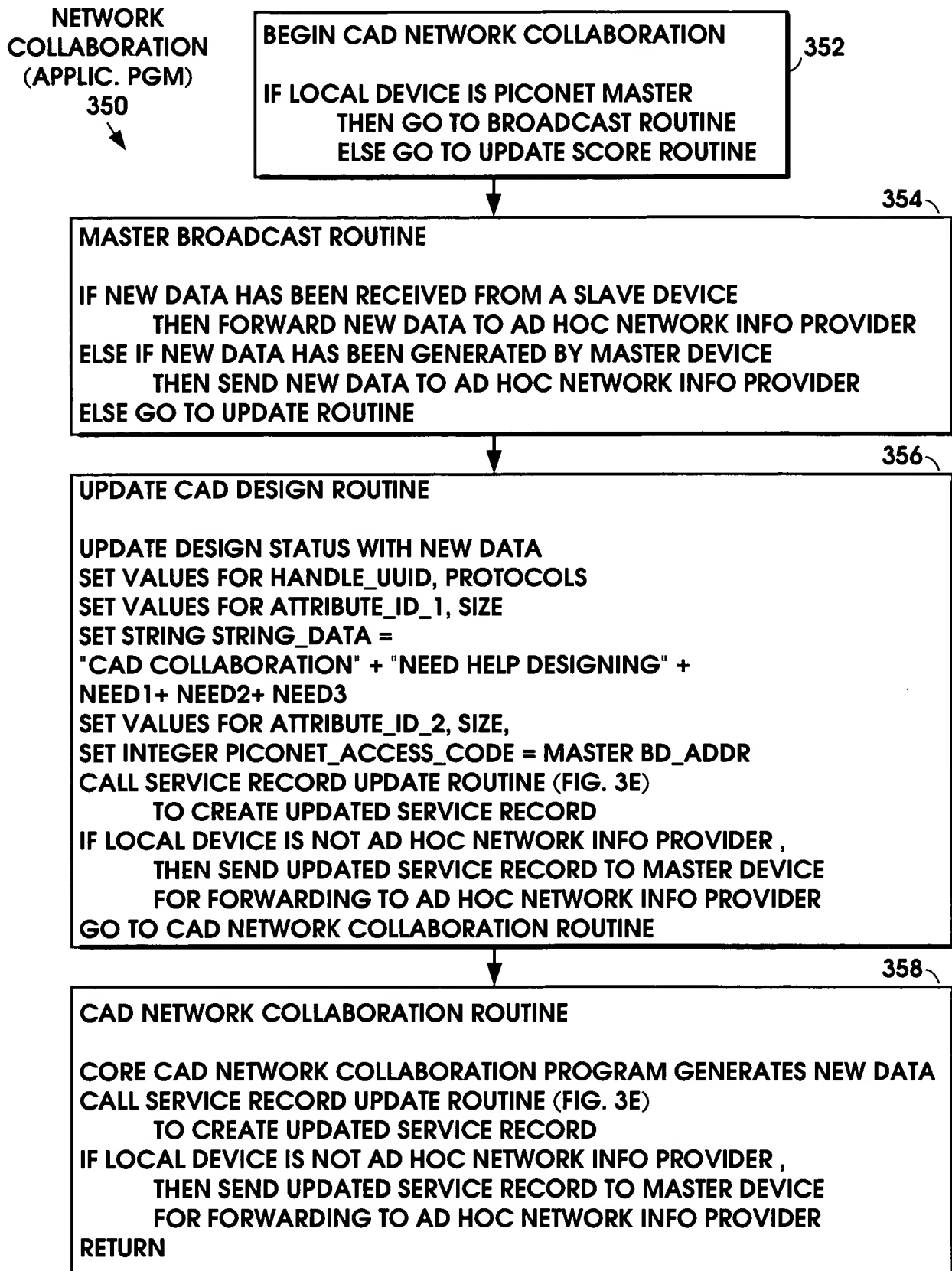


FIG. 3G

FIG. 4A

BLUETOOTH PACKET STRUCTURE  
FOR AN INQUIRY PACKET  
SENT BY ARRIVING DEVICE 100



FIG. 4B

BLUETOOTH FHS PACKET STRUCTURE  
FOR AN INQUIRY RESPONSE PACKET  
SENT BY AD HOC NETWORK  
INFORMATION PROVIDER 106

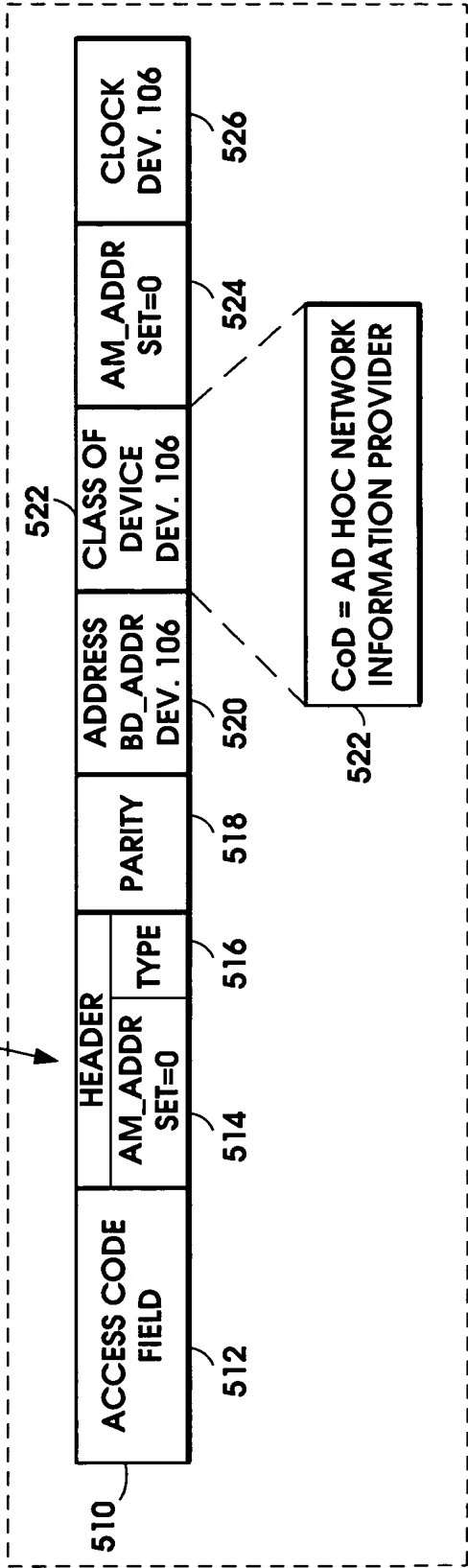


FIG. 4C

BLUETOOTH PACKET STRUCTURE  
FOR A PAGING PACKET  
SENT BY ARRIVING DEVICE 100

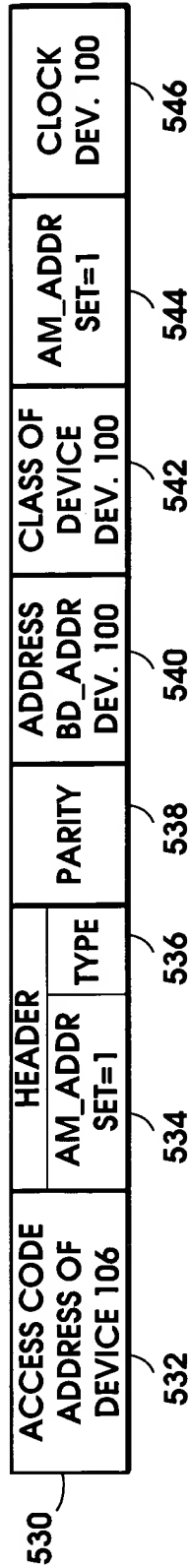
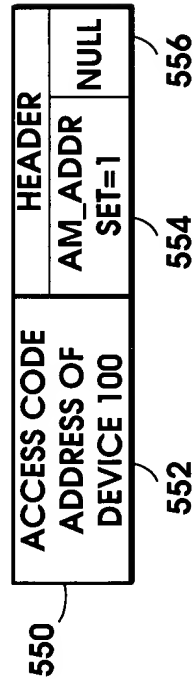
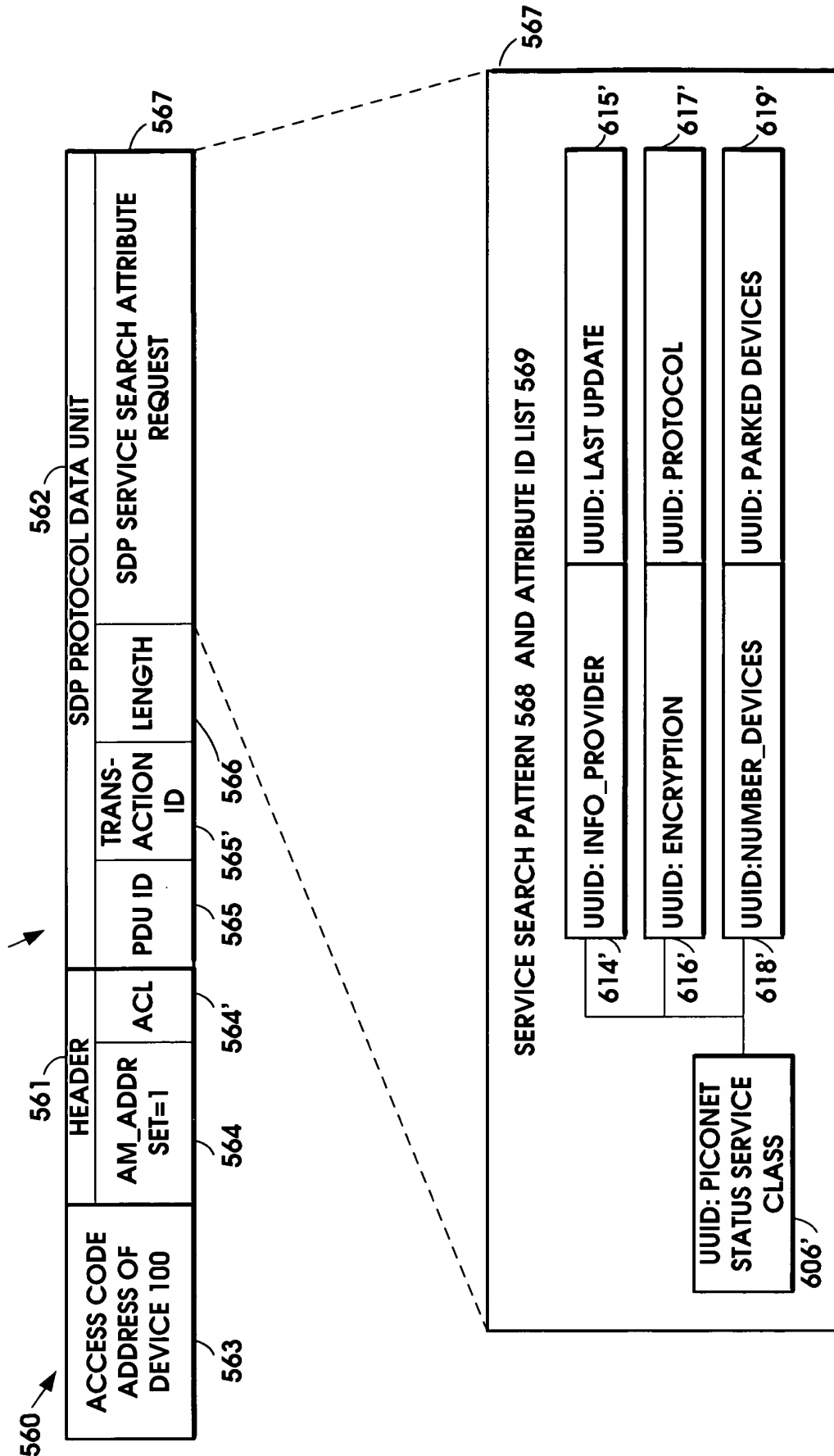


FIG. 4D

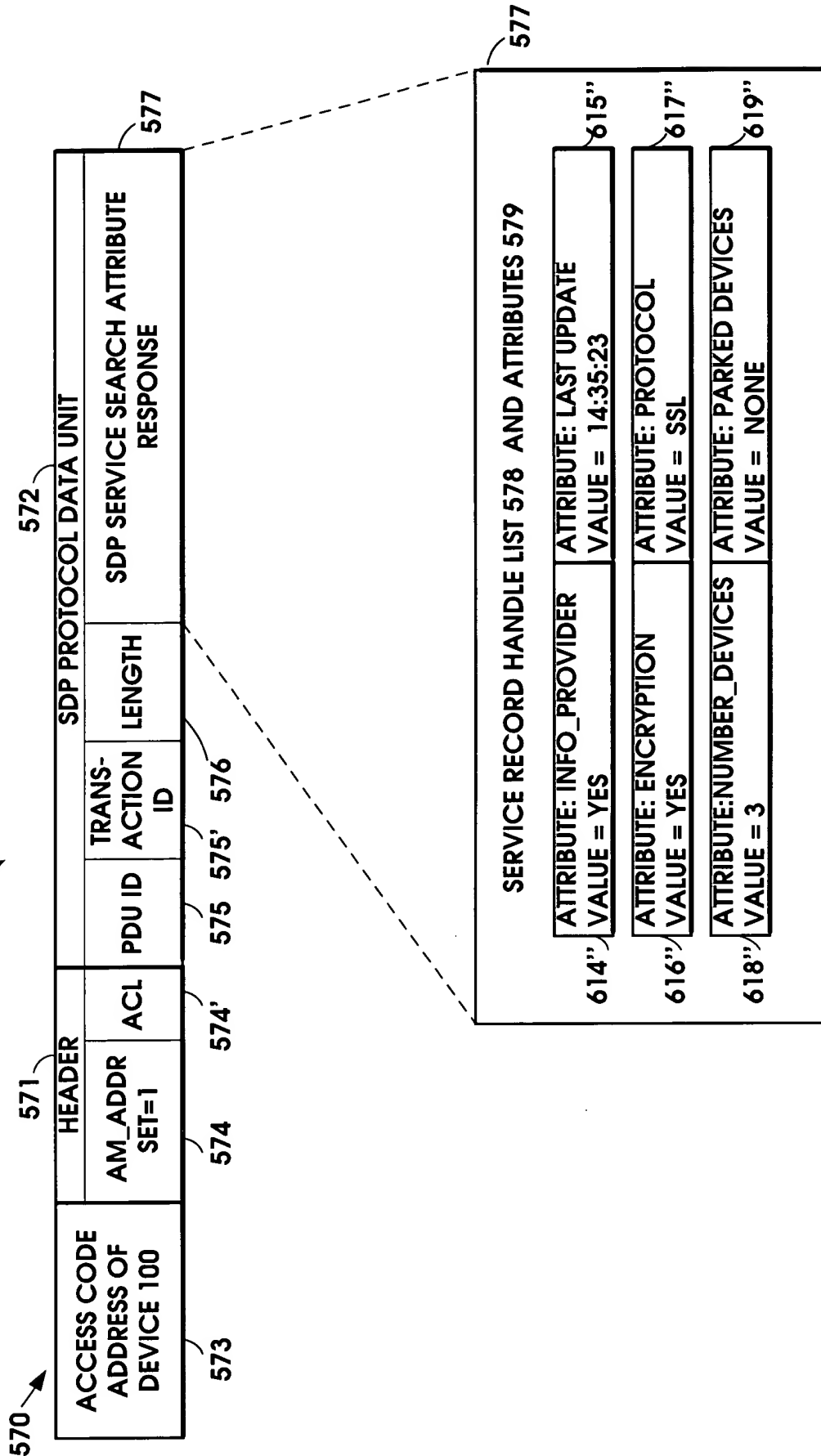
BLUETOOTH PACKET STRUCTURE  
FOR A PAGE ACKNOWLEDGEMENT PACKET  
SENT BY AD HOC NETWORK INFORMATION  
PROVIDER 106



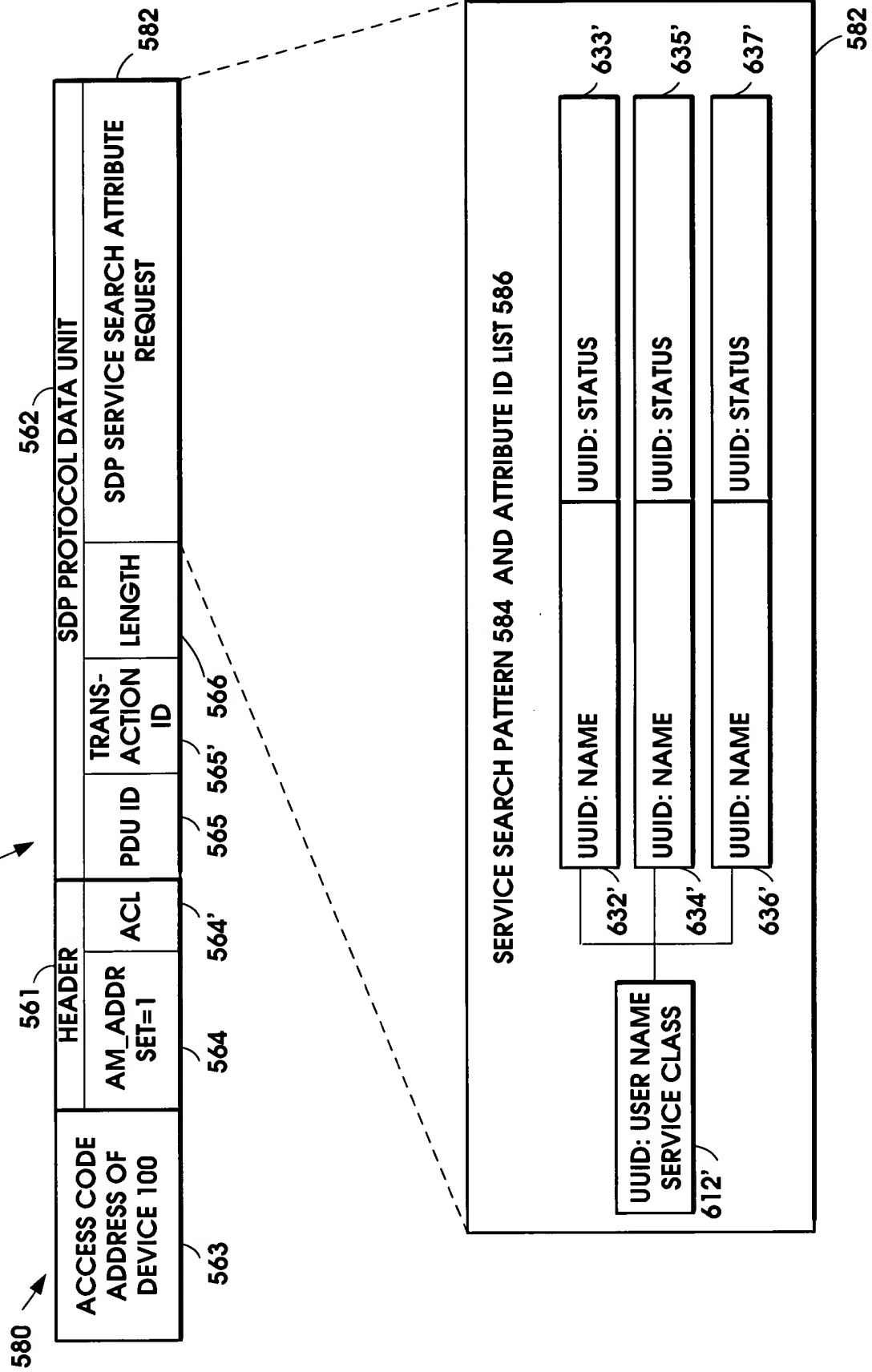
BLUETOOTH PACKET STRUCTURE FOR  
SDP SERVICE SEARCH ATTRIBUTE REQUEST PACKET  
SENT BY ARRIVING DEVICE 100  
TO AD HOC NETWORK INFORMATION PROVIDER 106



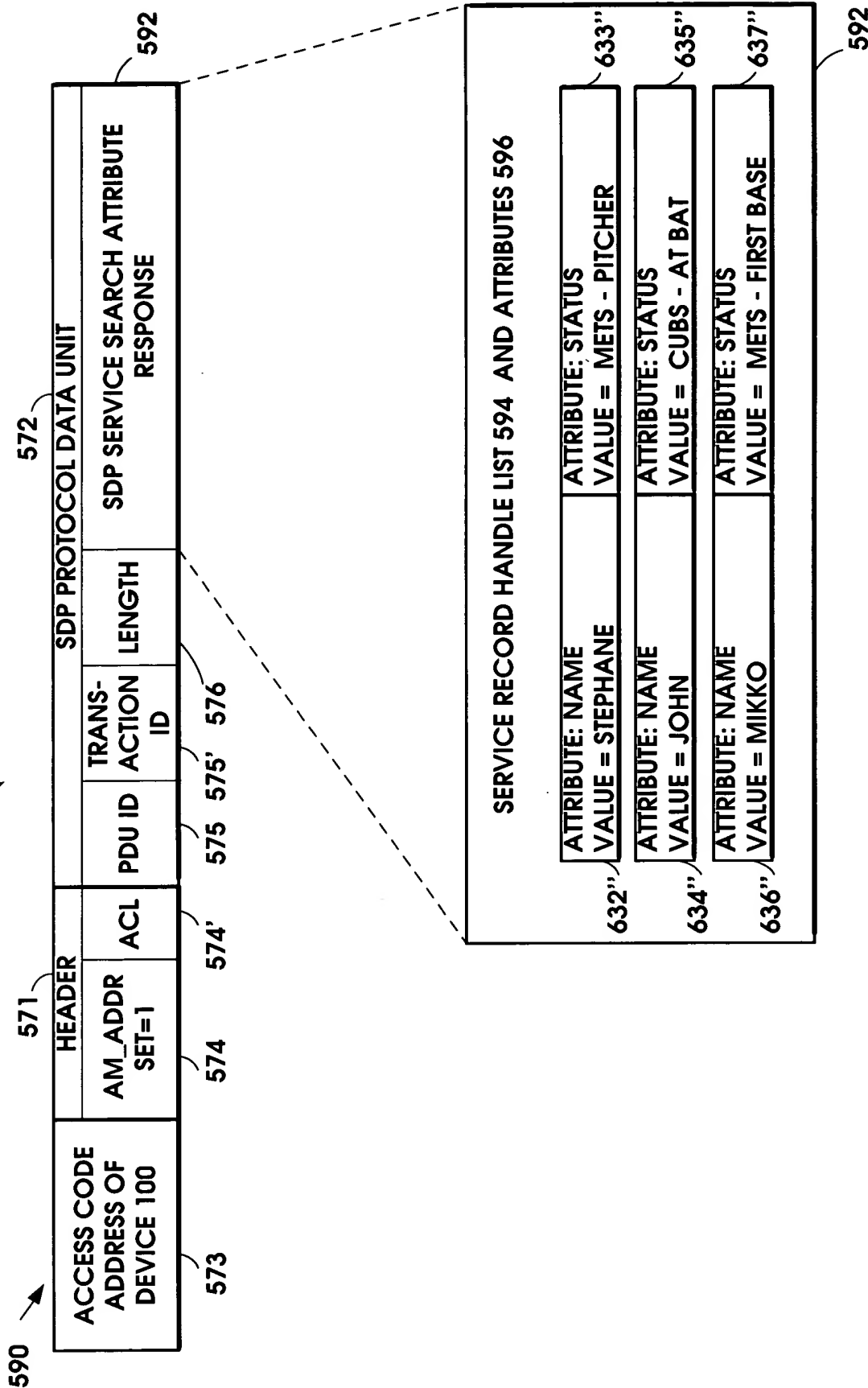
BLUETOOTH PACKET STRUCTURE FOR RESPONSE TO  
SDP SERVICE SEARCH ATTRIBUTE REQUEST,  
RESPONSE SENT BY AD HOC NETWORK INFORMATION PROVIDER 106  
TO ARRIVING DEVICE 100



BLUETOOTH PACKET STRUCTURE FOR  
SDP SERVICE SEARCH ATTRIBUTE REQUEST PACKET  
SENT BY ARRIVING DEVICE 100  
TO AD HOC NETWORK INFORMATION PROVIDER 106

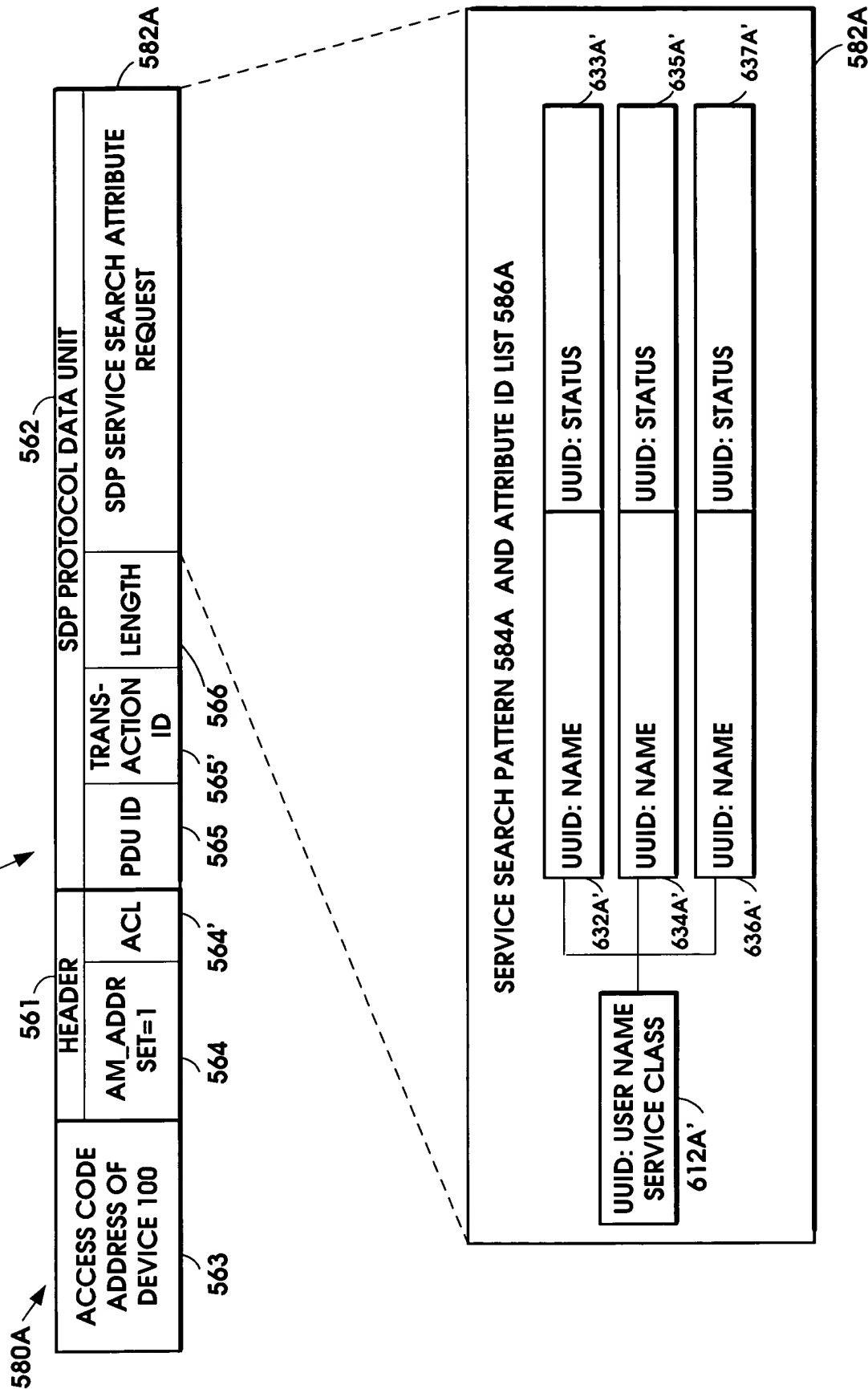


BLUETOOTH PACKET STRUCTURE FOR RESPONSE TO  
SDP SERVICE SEARCH ATTRIBUTE REQUEST,  
RESPONSE SENT BY AD HOC NETWORK INFORMATION PROVIDER 106  
TO ARRIVING DEVICE 100

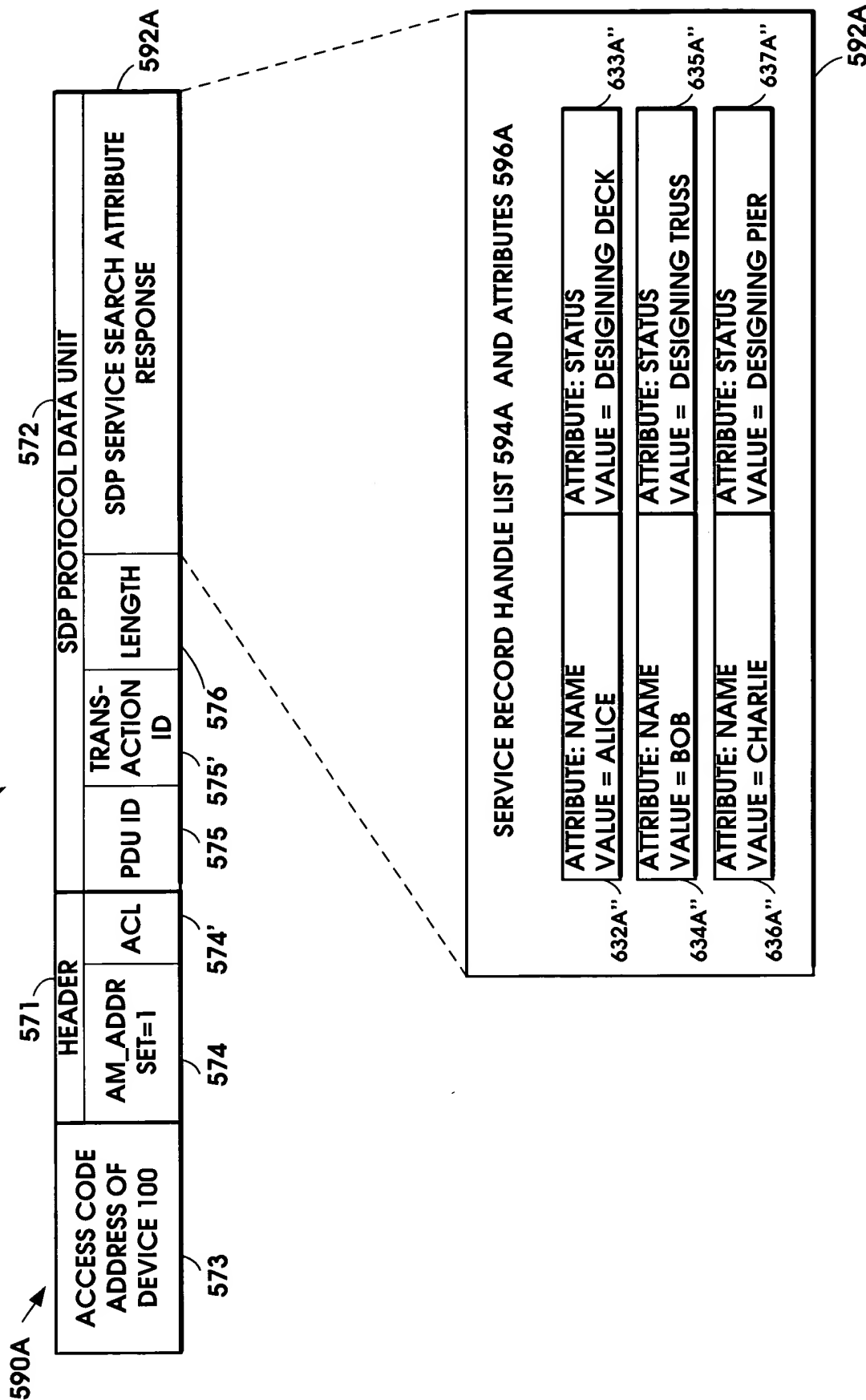




BLUETOOTH PACKET STRUCTURE FOR  
SDP SERVICE SEARCH ATTRIBUTE REQUEST PACKET  
SENT BY ARRIVING DEVICE 100  
TO AD HOC NETWORK INFORMATION PROVIDER 116



BLUETOOTH PACKET STRUCTURE FOR RESPONSE TO  
SDP SERVICE SEARCH ATTRIBUTE REQUEST,  
RESPONSE SENT BY AD HOC NETWORK INFORMATION PROVIDER 116  
TO ARRIVING DEVICE 100



BLUETOOTH PACKET STRUCTURE FOR  
SDP SERVICE SEARCH ATTRIBUTE REQUEST PACKET  
SENT BY ARRIVING DEVICE 100  
TO AD HOC NETWORK INFORMATION PROVIDER 126

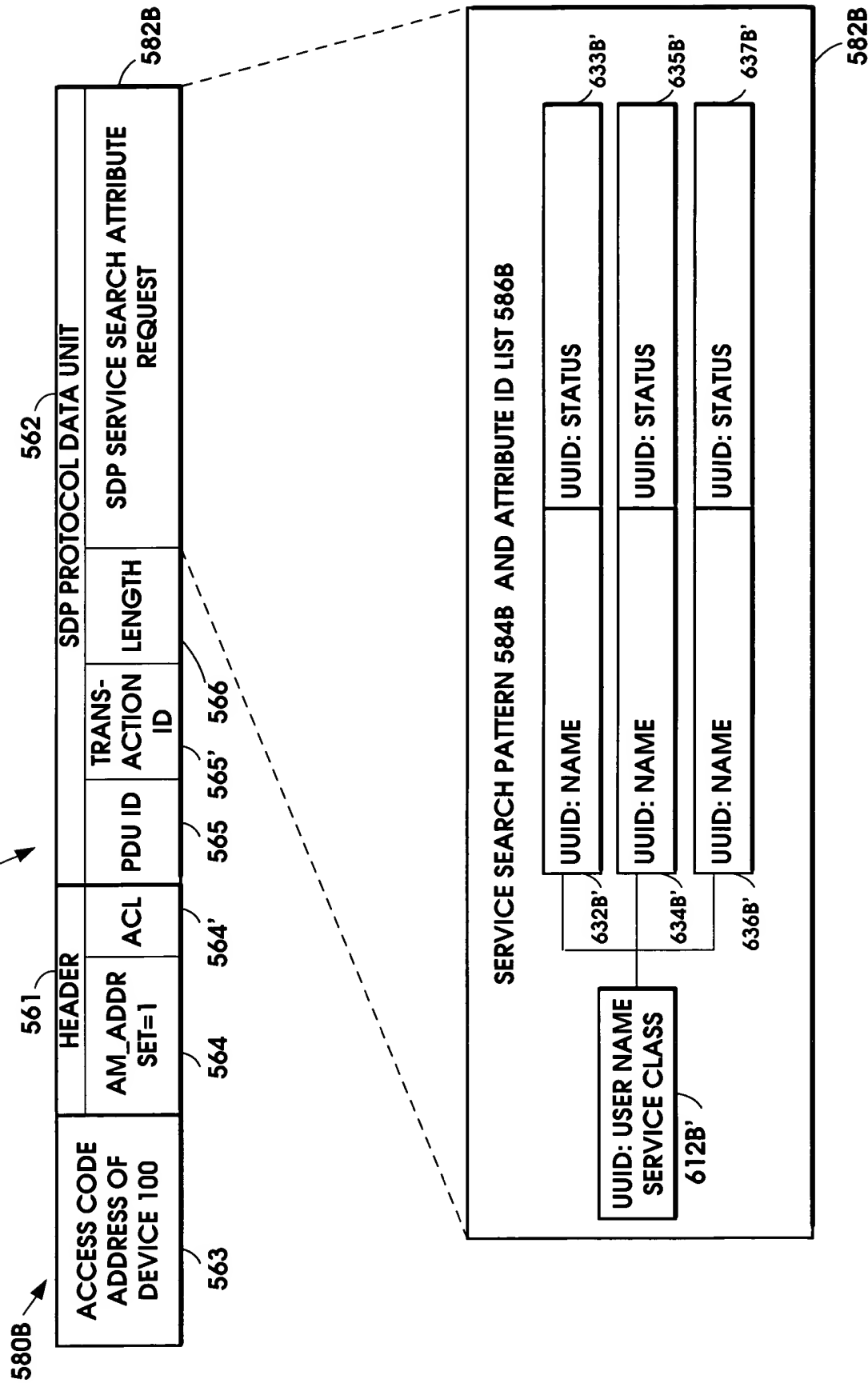


FIG. 4L

BLUETOOTH PACKET STRUCTURE FOR RESPONSE TO  
SDP SERVICE SEARCH ATTRIBUTE REQUEST,  
RESPONSE SENT BY AD HOC NETWORK INFORMATION PROVIDER 126  
TO ARRIVING DEVICE 100

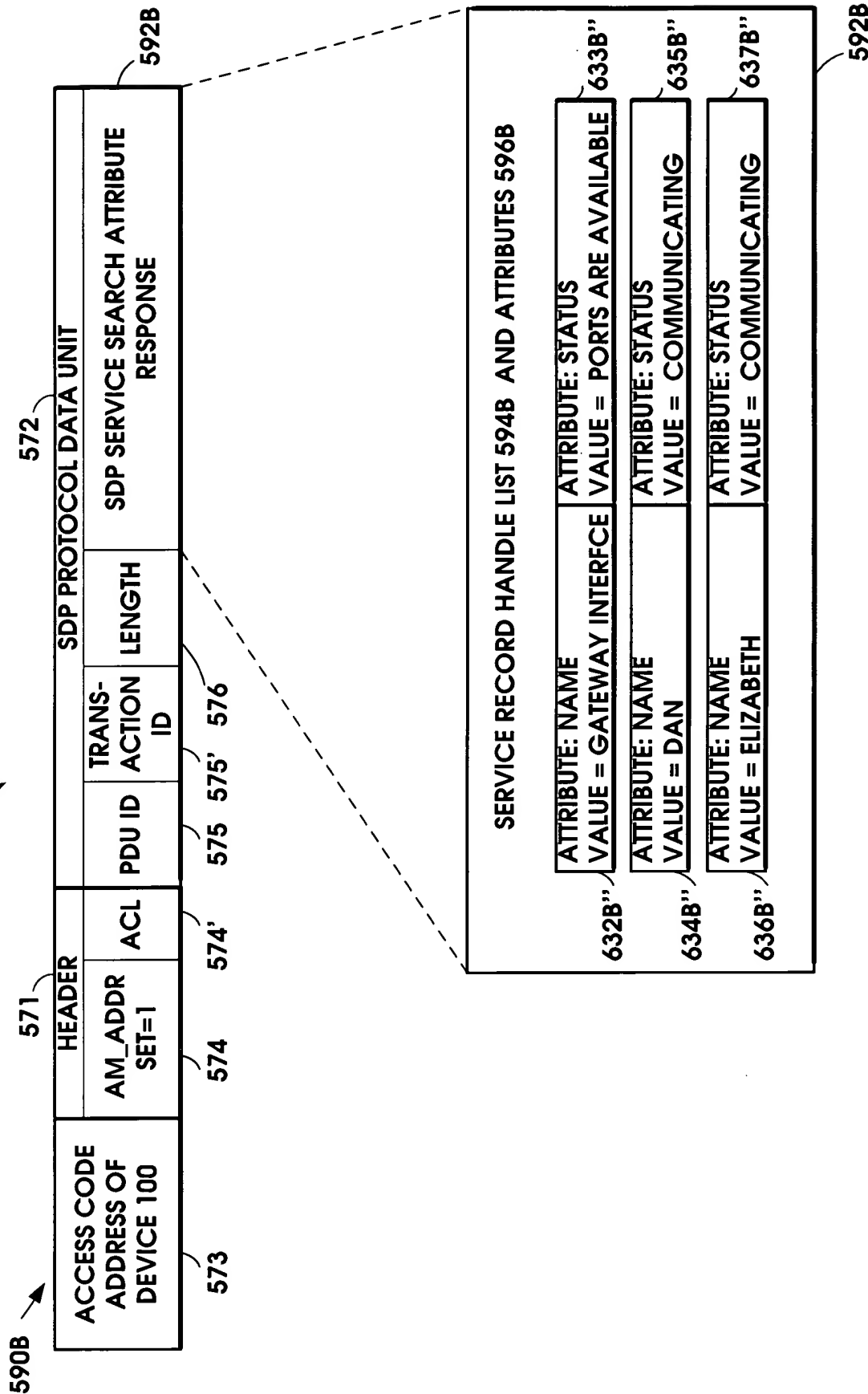


FIG. 5

FIG. 5

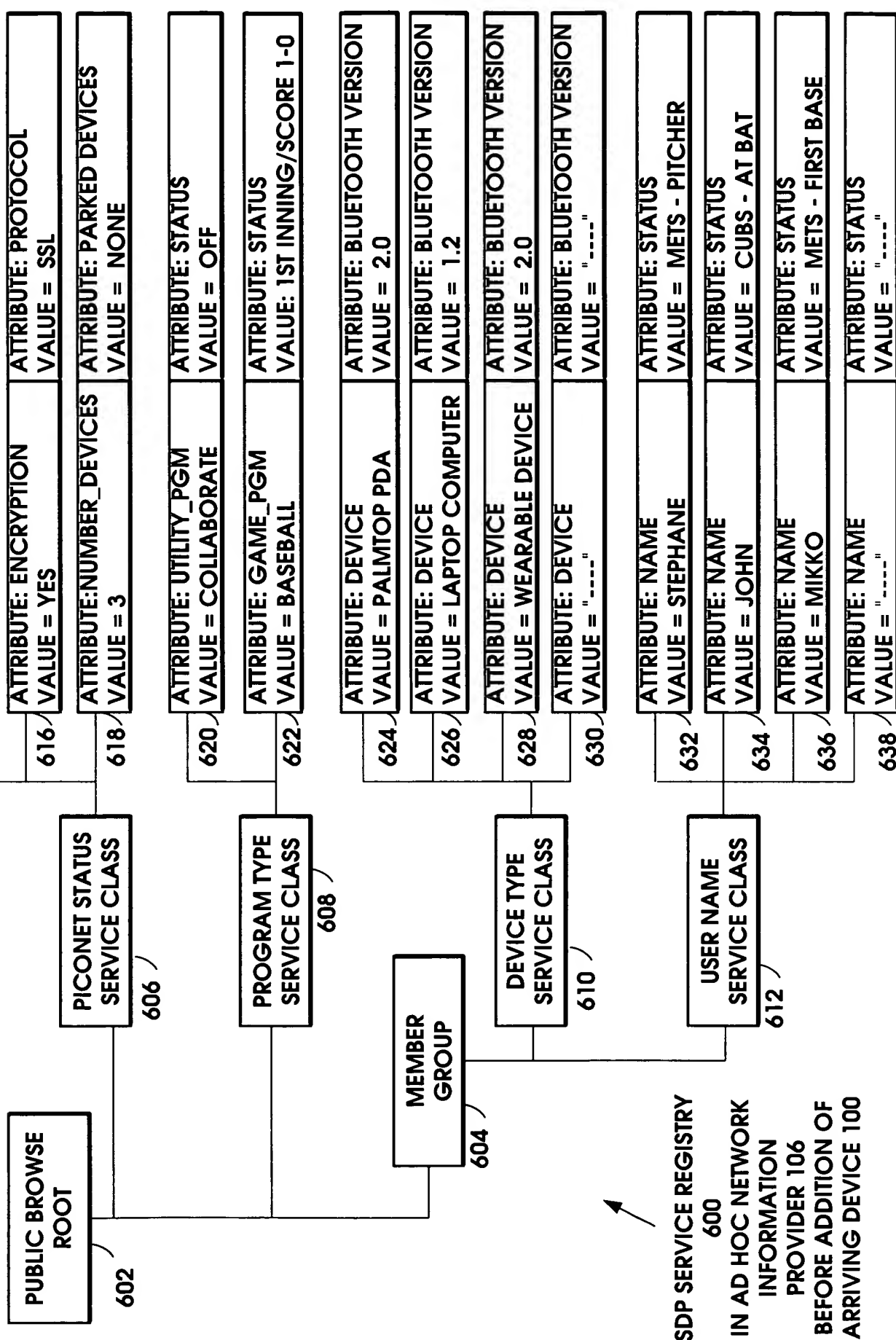


FIG. 5A

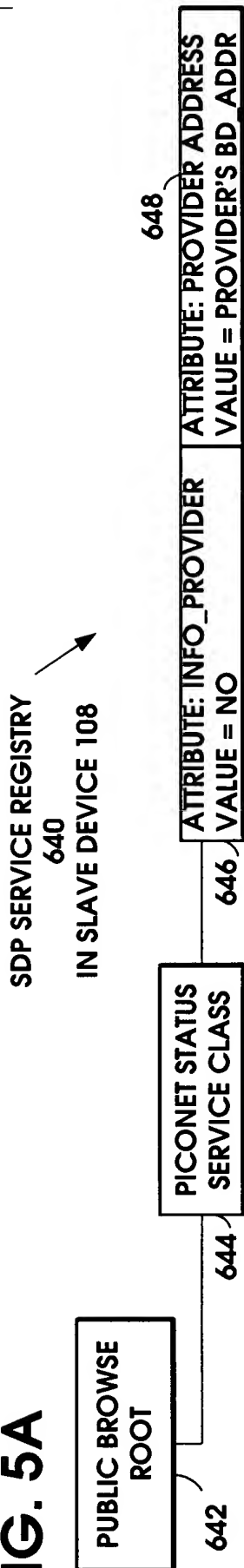


FIG. 5B

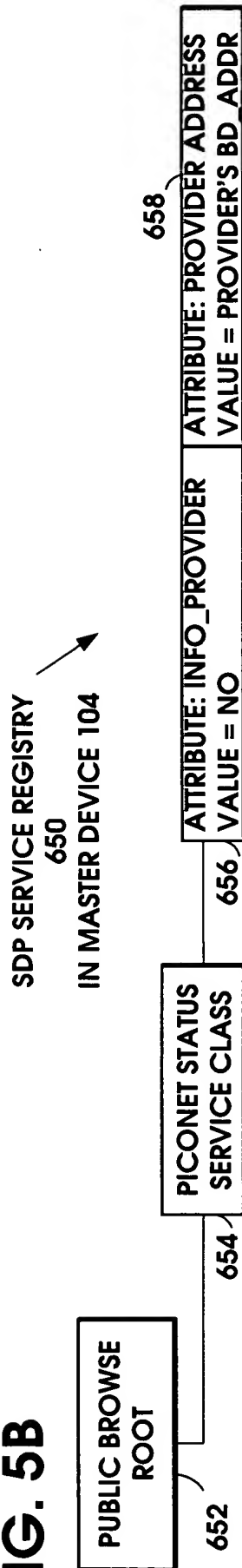


FIG. 5C

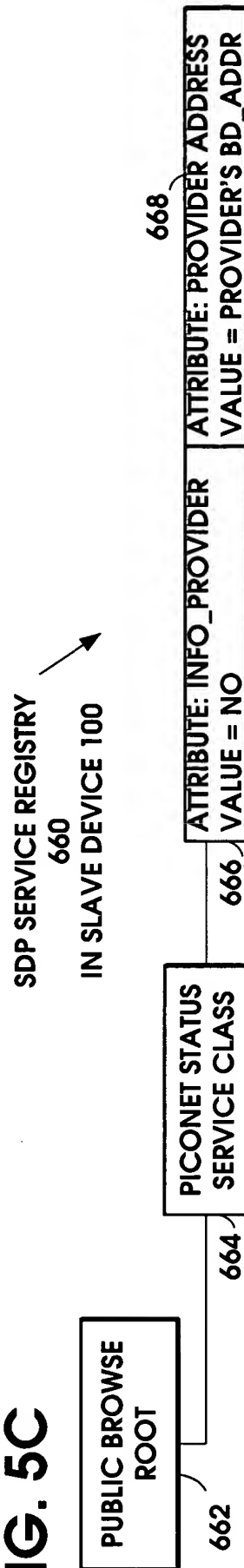


FIG. 5D

FIG. 5D

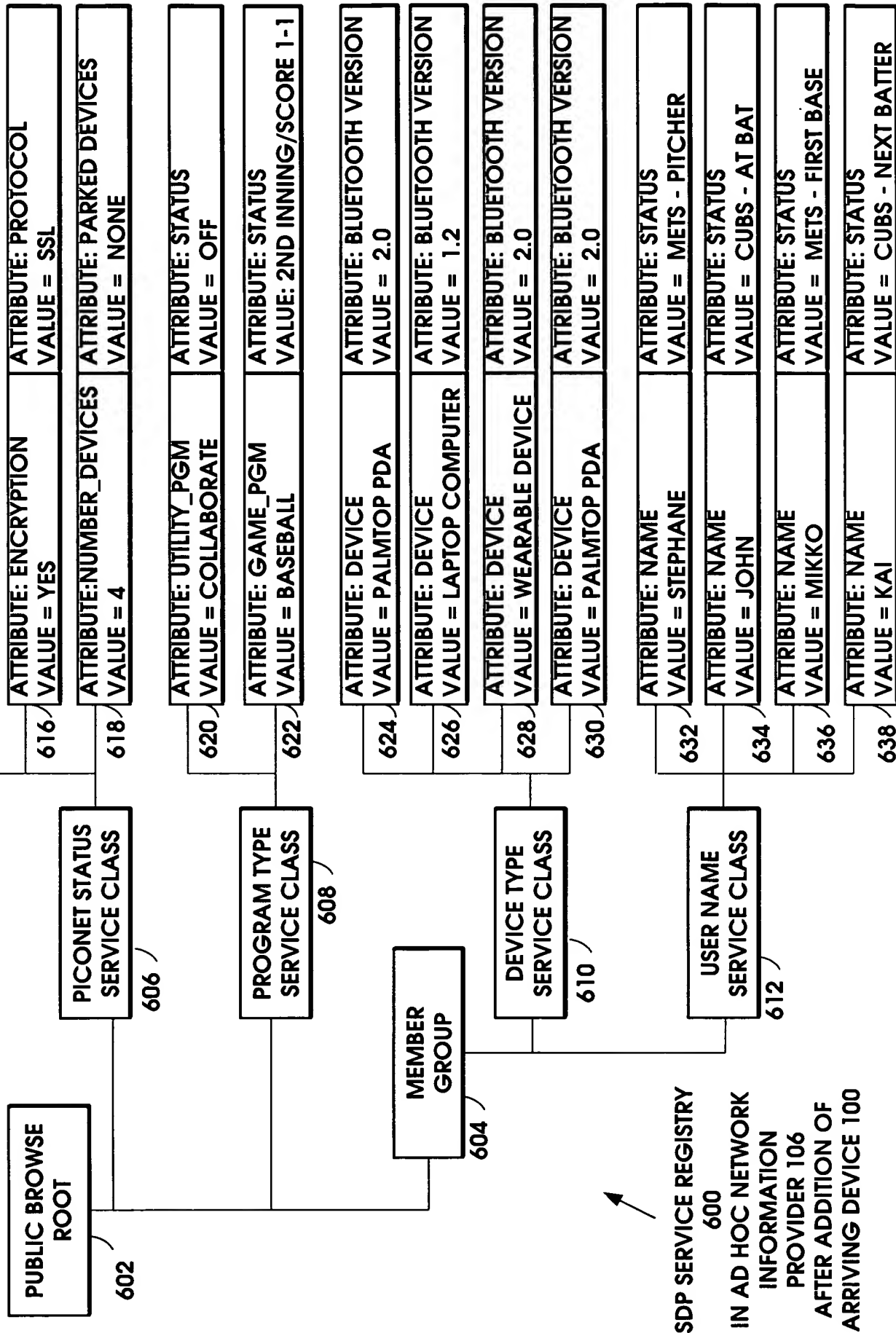


FIG. 6A

FIG. 6A

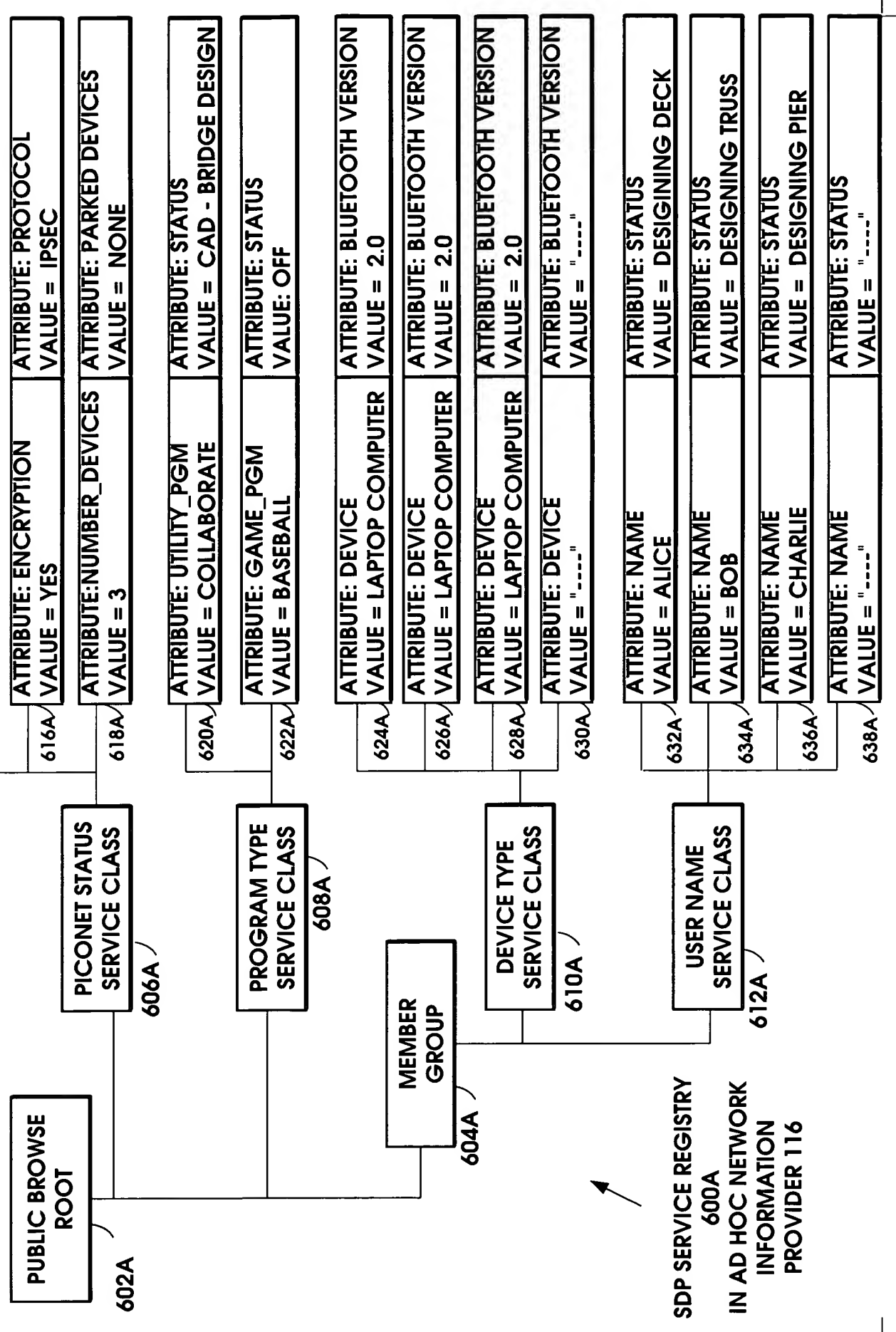
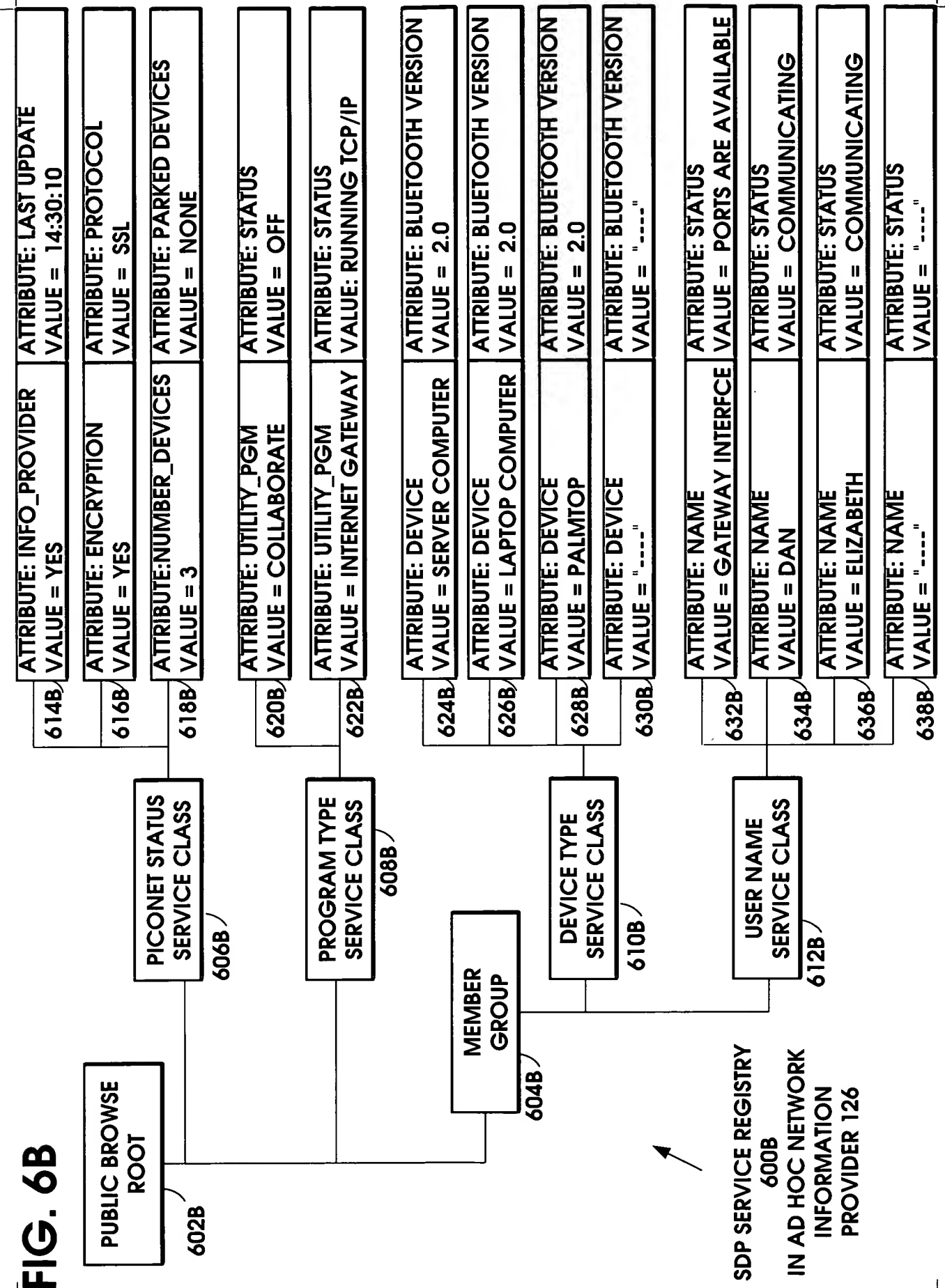


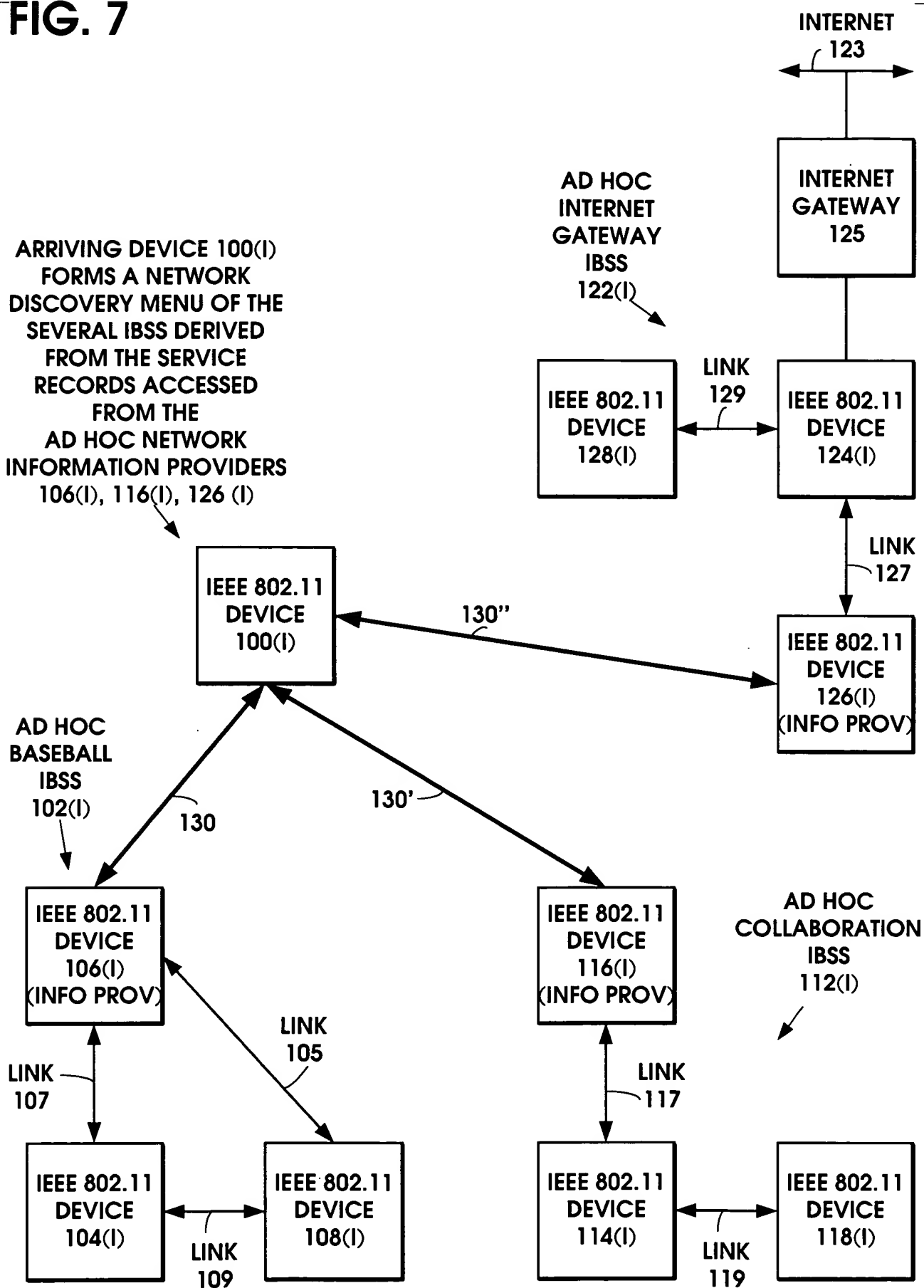


FIG. 6B



SDP SERVICE REGISTRY  
600B  
IN AD HOC NETWORK  
INFORMATION  
PROVIDER 126

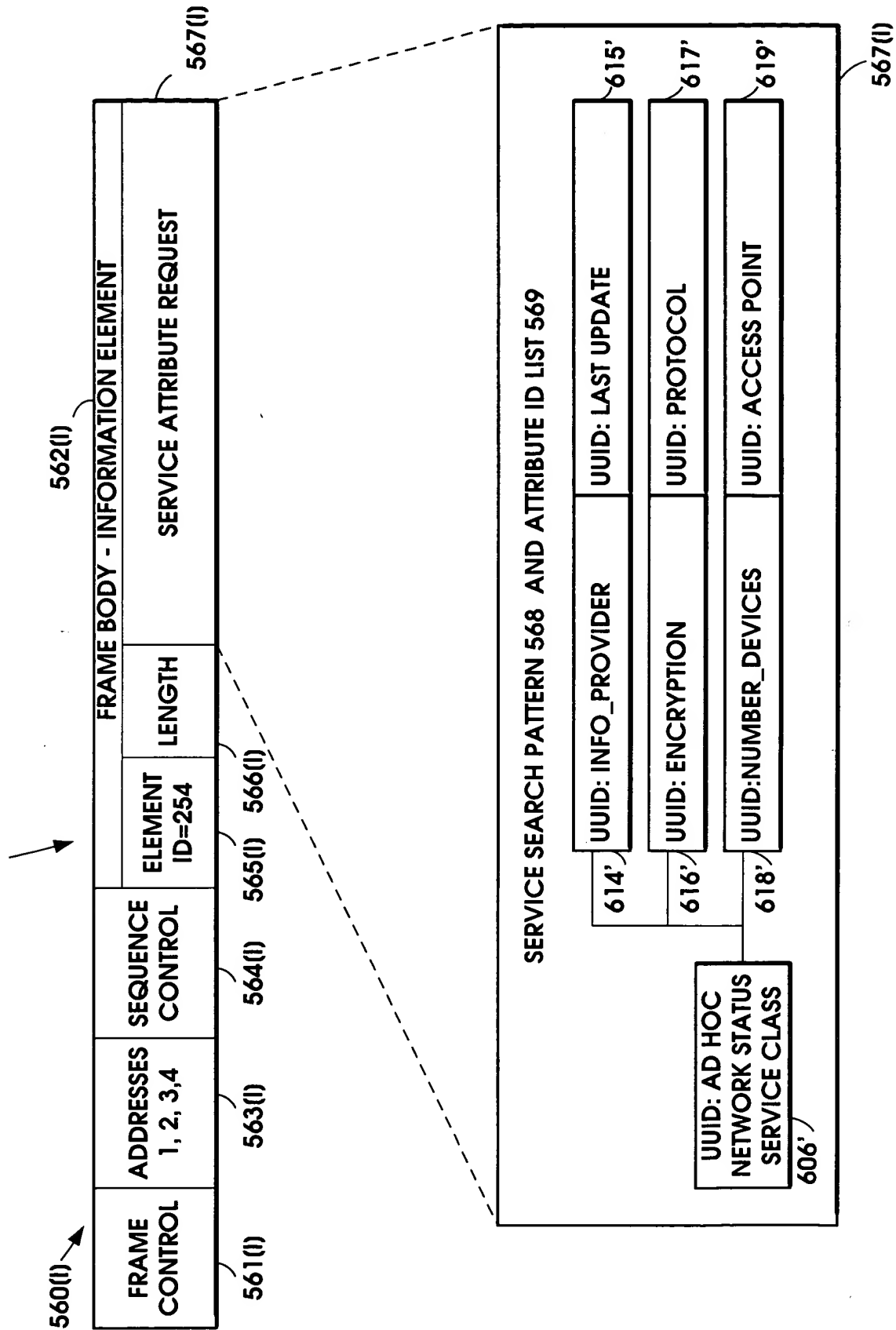
**FIG. 7**



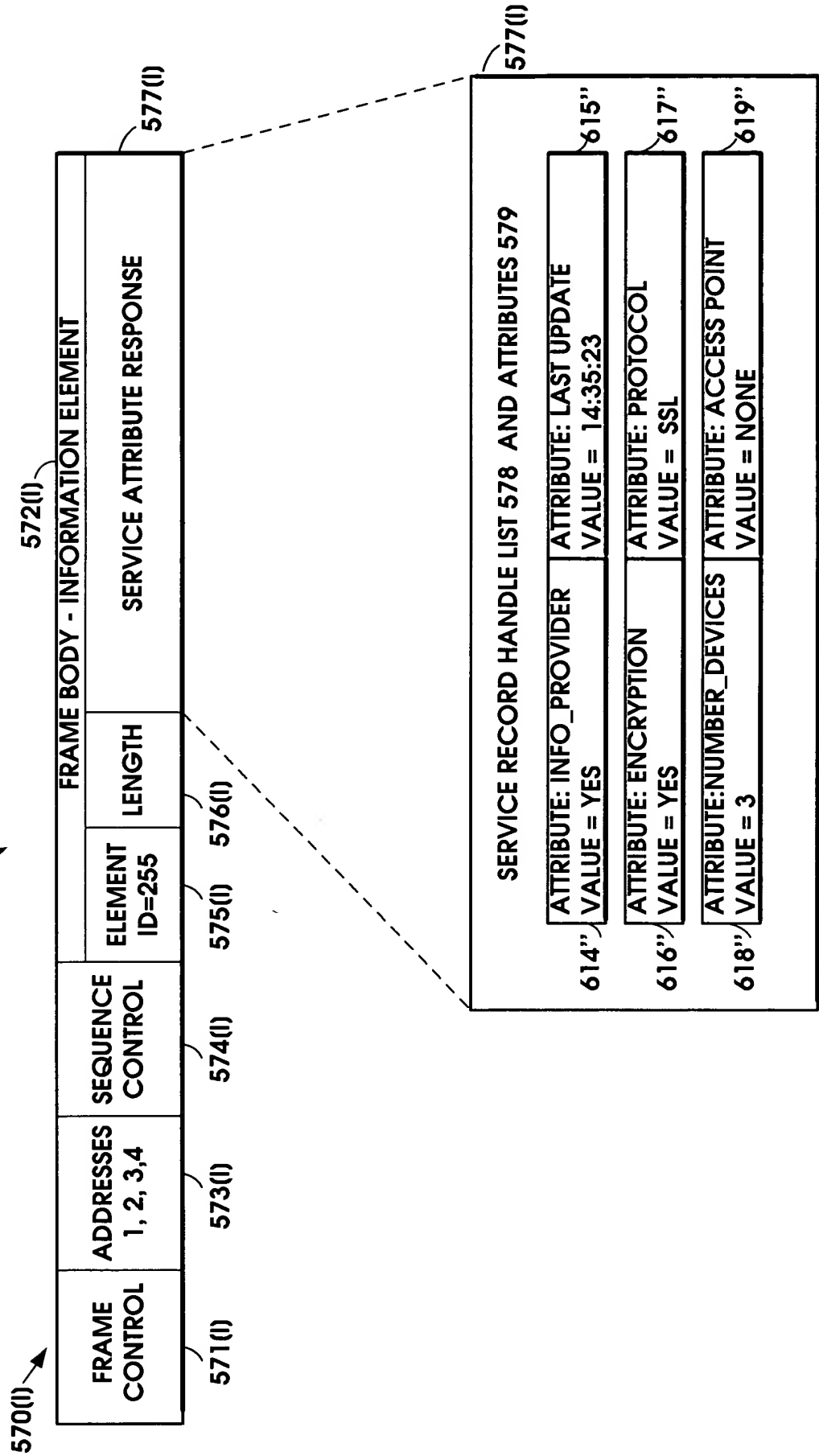
0931333-062701

FIG. 7A

IEEE 802.11 PACKET STRUCTURE FOR PROBE REQUEST,  
SENT BY ARRIVING DEVICE 100(I) TO  
AD HOC NETWORK INFORMATION PROVIDER 106(I)

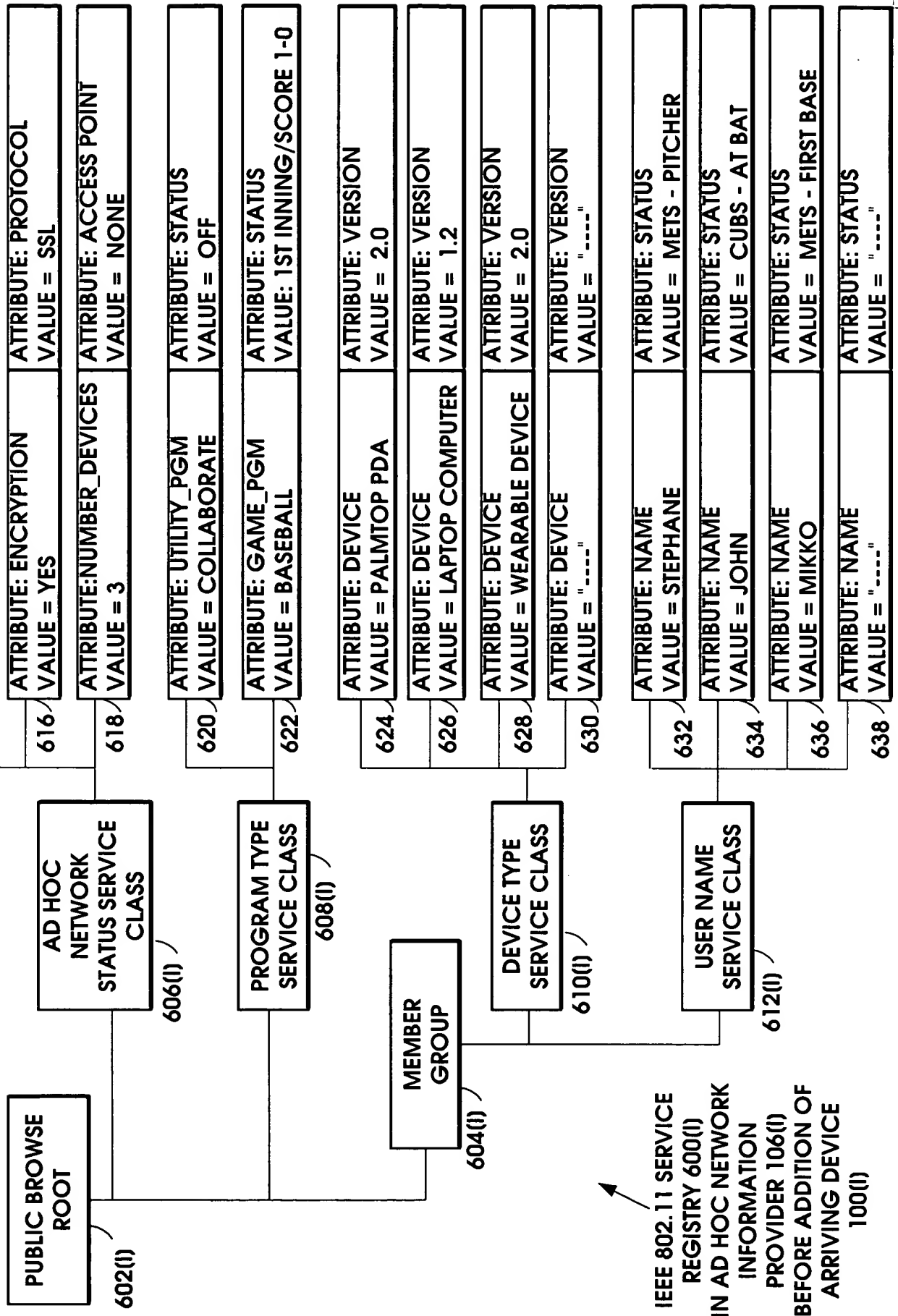


IEEE 802.11 PACKET STRUCTURE FOR PROBE RESPONSE TO PROBE REQUEST,  
THIS RESPONSE SENT BY AD HOC NETWORK INFORMATION PROVIDER 106(I)  
TO ARRIVING DEVICE 100(I)



102290" 28E16860

FIG. 7C



**FIG. 8**

ARRIVING DEVICE 100(H2)  
 FORMS A NETWORK  
 DISCOVERY MENU OF THE  
 SUBNETS DERIVED FROM  
 THE SERVICE RECORDS  
 ACCESSED FROM THE  
 AD HOC NETWORK  
 INFORMATION PROVIDERS  
 106(H2), 116(H2), 126 (H2)

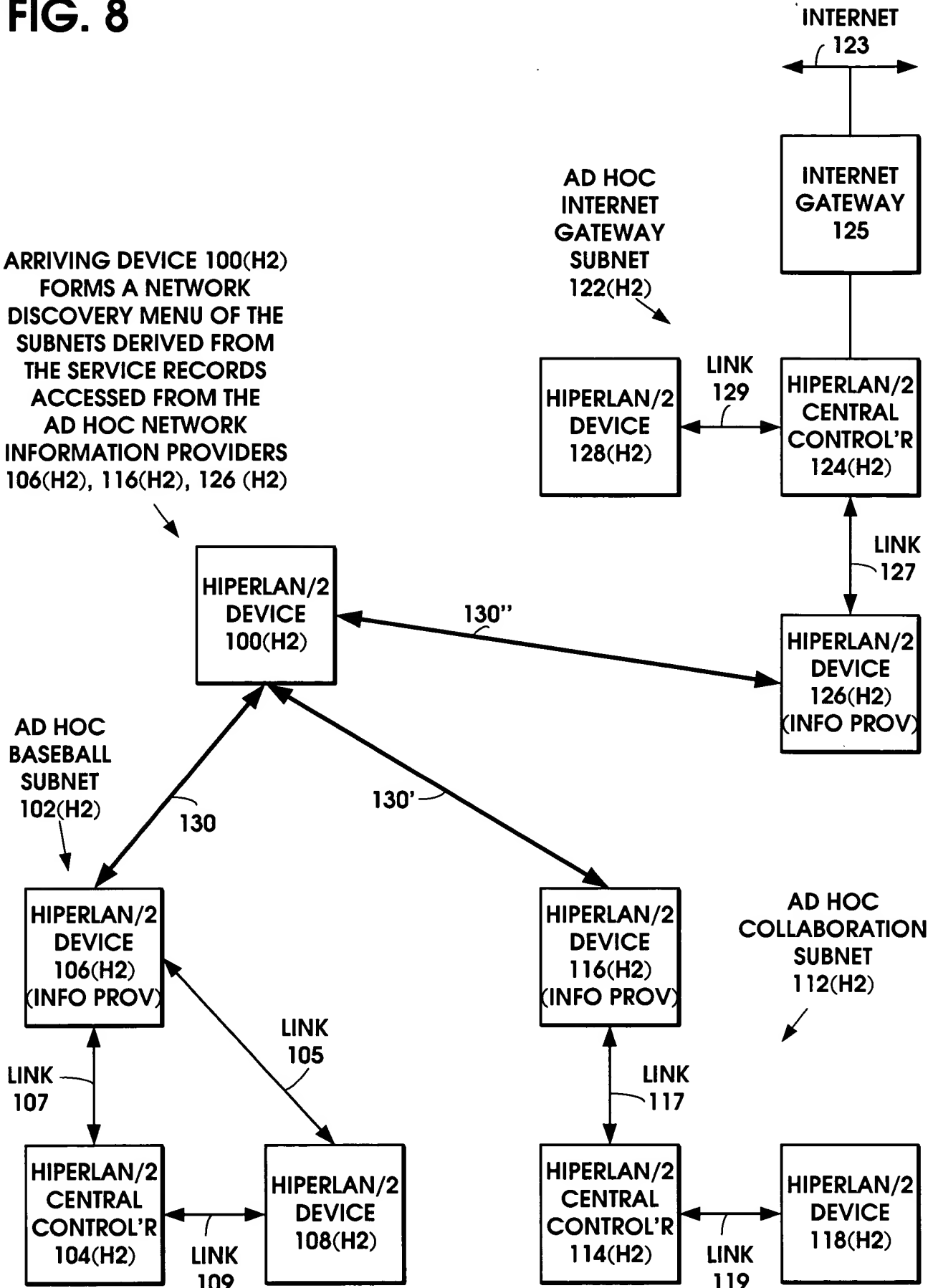


FIG. 8A

HIPERLAN TYPE 2 MAC FRAME STRUCTURE 800  
INCLUDING RANDOM CHANNEL RESOURCE REQUEST 836,  
SENT BY ARRIVING DEVICE 100(H2) TO  
CENTRAL CONTROLLER DEVICE 104(H2)

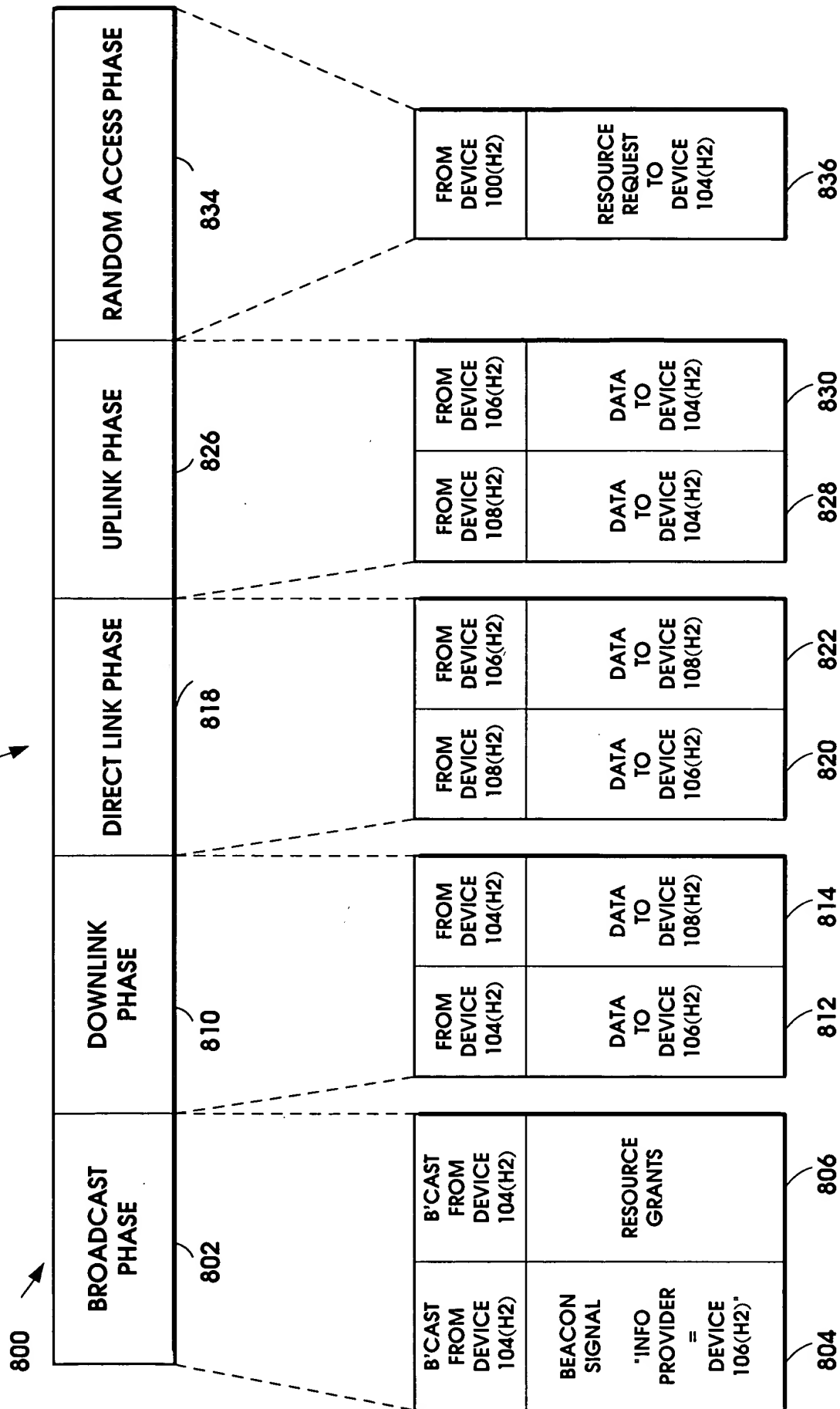


FIG. 8B

HIPERLAN TYPE 2 MAC FRAME STRUCTURE 800'  
INCLUDING SERVICE RECORD REQUEST 838,  
SENT BY ARRIVING DEVICE 100(H2) TO  
AD HOC NETWORK INFORMATION PROVIDER 106(H2)

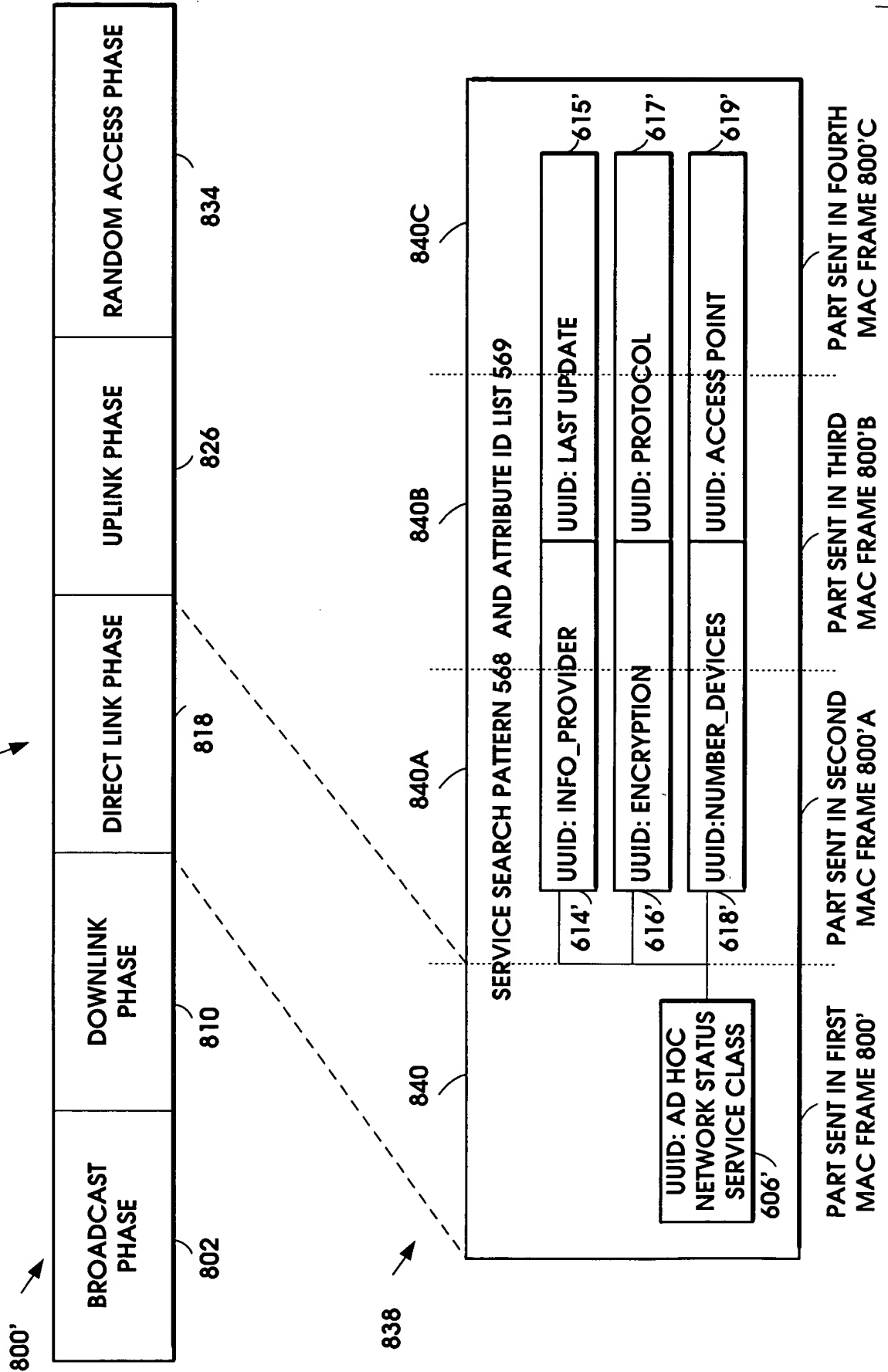




FIG. 8C

HIPERLAN TYPE 2 MAC FRAME STRUCTURE 800"  
INCLUDING SERVICE RECORD RESPONSE 848,  
SENT BY AD HOC NETWORK INFORMATION PROVIDER 106(H2)  
TO ARRIVING DEVICE 100(H2)

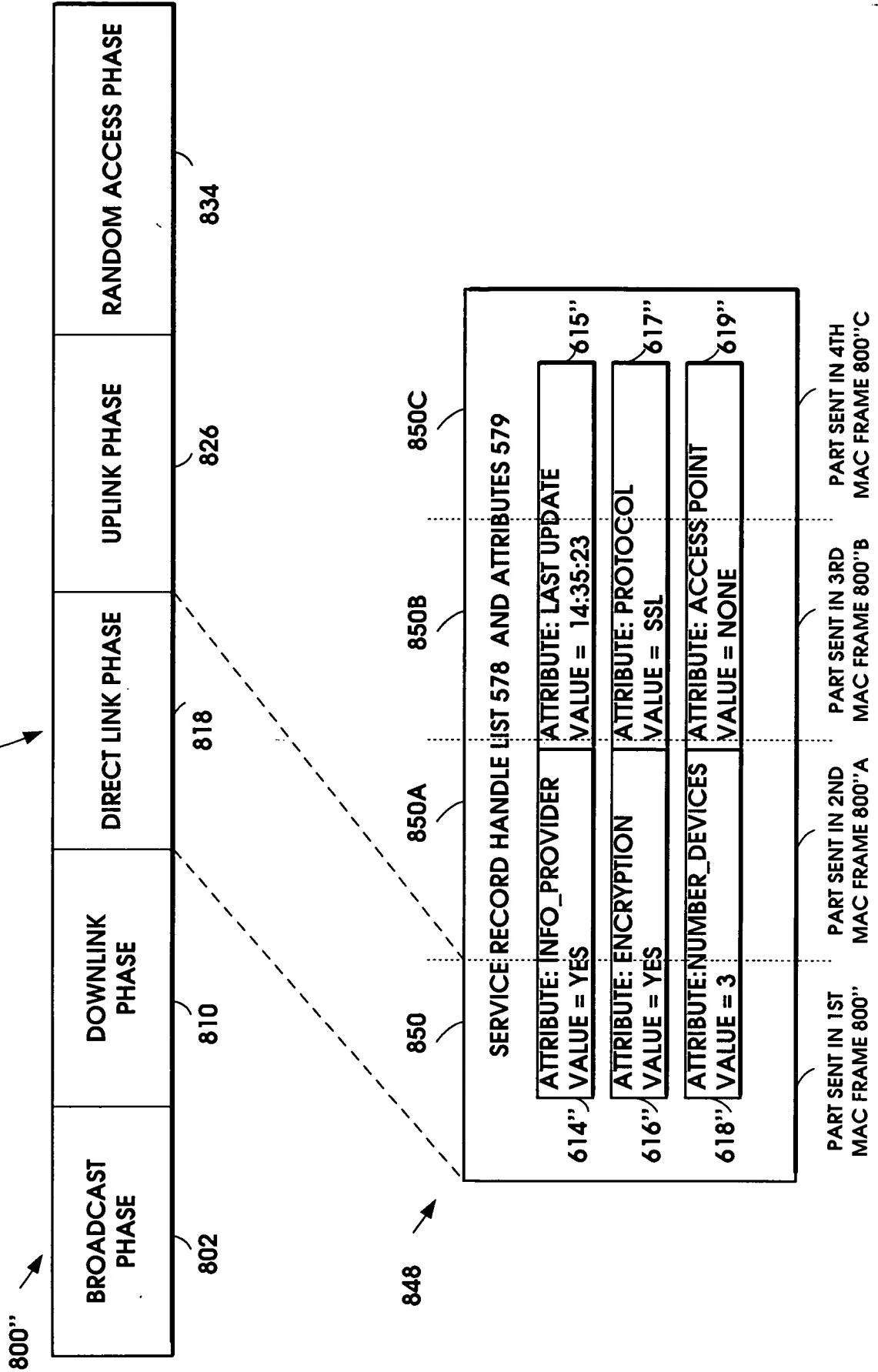


FIG. 8D

FIG. 8D

